

INSIDE DOPE

by GEORGE F. TAUBENECK

Explanation

Stories of the Week
Gags of the Week
Add Salesmen Stories
Quote of the Week
We NEED Competent Engineers
Out of Our Mailbag

Explanation

Grateful are we for the many contributions of jokes and anecdotes this column receives. Trouble is, too many are unprintable in the form submitted. Some of them can be rewritten from the blunt to the vaguely suggestive; but as for the rest—well, we hope subscriber-contributors will appreciate our position.

Oddly (or is it?) the bluntest spade-is-a-spade jokes are sent to us by women readers. If you hesitate to believe this, our correspondence files will prove the above statement. In this connection, Prof. John Willman of "Dope's" Alma Mater, the University of Illinois, has made an interesting psychological observation.

"Shock," he declares, "is the essential element of humor." The best-liked jokes, he goes on to say, are those which are "off color." Because they're "playfully shocking," they relieve social tensions.

It's fun to indulge a forbidden thought, he elucidates, if you can experience it in full knowledge that you won't be punished for it.

Ah—hah! so that's it. Now we know the scientific reason.

Stories of the Week

West-bound train was pulling out of the station as a young man, luggage in hand, dashed toward it. Sprinting madly he caught up with it, heaved his luggage onto the observation platform, grabbed a handhold, and hauled himself aboard.

For five minutes he stood there and panted.

"You young fellows don't seem to have any stamina any more," taunted a paunchy man seated on the platform.

"Mister," glared the sprinter, "I missed this train two stations down the line."

Appended to a manuscript received by a publishing house was this notation:

"The characters in this story are fictional. They bear no resemblance to any real people, dead or alive."

Shortly the manuscript was returned to the aspiring author. On the bottom of the above notation the editor had scribbled:

"You're right. That's the trouble with your story."

Gags of the Week

"She married him for better or for worse—but not for good."

How to double your money safely: fold it carefully and put it in your hip pocket.

Add Salesmen Stories

Local photographer took a group picture of a grammar school class. His sales pitch ran as follows:

"When you grow up it will be a lot of fun to look at this picture. You can find your buddy, Joe, who'll be a dignified banker by then. Sally will have six children. Jimmy may be governor of the state. . . ."

"And teacher," interrupted a little rebel, "will be dead!"

Quote of the Week

"A man who wants to lead the orchestra must turn his back on the crowd."—Picture Post (London).

We NEED Competent Engineers

The Engineers Joint Council has proposed the establishment of a National Engineering Personnel Board to select engineers for military, civil defense, or industrial allocation from

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Deepfreeze Shows 6 Refrigerators In Line for 1951

CHICAGO—A six-model line of new 1951 refrigerators priced from \$219.95 to \$439.95 and featuring a new "Storador" was unveiled by Deepfreeze at its national sales conference held recently in the Sheraton hotel here.

The line includes two 11-cu. ft. models, three 9-cu. ft. models, and a 7-cu. ft. model. Model numbers and prices of the refrigerators are as follows:

"Super deluxe" model DW-11,	\$439.95;
"special" model DF-11	\$359.95;
"super deluxe" model DW-9,	\$399.95;
"deluxe" model DG-9,	\$339.95;
"special" model DF-9,	\$299.95;
"special" model DF-7,	\$219.95.

Incorporated in two models—DW-11 and DW-9—is a Storador with these features: an "Eggstor" holding 21 eggs; two 1-qt. "Handy Jugs" for fruit juices or water; a butter box with "spread control" holding one pound of butter; a divided, removable

(Concluded on Page 4, Column 3)

REMA-RSES Completes Dallas Show Plans

DALLAS—A three-day Refrigeration and Air Conditioning Educational Conference sponsored jointly by the Refrigeration Equipment Manufacturers Association and the Refrigeration Service Engineers Society will get under way here on Friday, Jan. 26.

The conference, which is the third in a series of four regional meetings sponsored by these two groups, will feature product exhibits by from 50 to 75 manufacturers and a program of six talks and three "Information Please" sessions.

The affair will be in the Agricultural building at the State Fair Grounds here, while conference headquarters will be in the Baker hotel.

The Refrigeration Equipment Wholesalers Association and the

(Concluded on Page 4, Column 4)

Lawson Forecasts Big '51 Market for Freezers, Ranges

CHICAGO—A growing market for electric ranges and home freezers and a declining one for refrigerators is one of the prospects the appliance industry has to face in 1951, Charles T. Lawson, vice president in charge of Kelvinator sales, Nash-Kelvinator Corp., told the National Retail Furniture Association here recently.

Lawson gave the dealers his views on what the current situation is in relation to government controls and what the prospects are for production and prices this year.

"I cannot tell you what is going to happen in the next six months," he began. "I do not know nor do I know any responsible individual who feels that he does."

"We are now operating under two types of controls."

"Regulation W, since it was tightened to 25% down with 15 months to pay on appliances, has definitely affected retail sales. It is difficult, however, for us to measure the exact extent."

"Some stores report a very consi-

(Concluded on Back Page, Column 1)

'Biggest Ever' ASHVE Show To Open Jan. 22

350 Exhibitors Prepare For Phila. Exposition of Heating, Ventilating Items

PHILADELPHIA—With approximately 350 exhibitors occupying all available space, the 10th International Heating & Ventilating Exposition is expected to be the largest of its kind ever held. It will be staged in the Commercial Museum here from Jan. 22 to 26.

Of the exhibitors, approximately 80 serve the air conditioning field directly.

The show is sponsored by the American Society of Heating and Ventilating Engineers which is staging its 57th annual meeting at the same time in the Bellevue-Stratford hotel and Convention Hall. The latter is adjacent to the Commercial Museum.

The exposition, which is expected to introduce a number of innovations in the air conditioning field as well as the heating and ventilating department, will open officially at 2 p.m. Monday, Jan. 22. It will remain open until 10 p.m. that evening.

On Tuesday, Wednesday, and Thursday, it will open at noon and close at 10 p.m. On Friday, it will open at noon as usual, but will close at 6 p.m.

Admission is by invitation and registration only without charge. At-

(Concluded on Page 4, Column 1)

3 Refrigerator Makers Get Defense Contracts

CHICAGO—Hotpoint, Inc., here, has entered into a contract to build components and sub-assemblies for jet engine planes, and will devote its new plant facilities here, originally designated for refrigerator production, to this war contract.

Refrigerator production will be carried on in other plants, it was stated. James J. Nance, president, in announcing the signing of the contract with Pratt & Whitney, aircraft manufacturer, said that "from now on we will be carrying the double job of building and selling as many appliances as we can while at the same time bringing these new and important products into production as quickly as possible."

The Westinghouse appliance division and Admiral Corp. also revealed that they had received their first defense contracts, but production will probably not get started on these contracts until the second quarter.

Shortages Cause Cutbacks, Layoffs

DETROIT—Materials shortages caused by government restrictions on basic metals are already causing reduced output and minor layoffs of employees in a number of plants in the appliance industry.

Charles J. Gibson, president of Gibson Refrigerator Co., said that his plants are working at only 65% of capacity due to materials shortages.

Frigidaire division of General Motors Corp. has announced that "increasing shortages of steel for civilian production, and government restrictions on use of such critical

(Concluded on Page 4, Column 2)

Group Pushes Plan For Replacement Parts Quota Setup

CHICAGO—A plan for specific allocation by the government of sufficient replacement parts for the maintenance and repair of refrigerators, other major appliances, and radio and television equipment is being pushed by the Radio, Television and Household Appliance Wholesale Advisory Committee, which held another meeting here Jan. 9.

The committee, headed by James H. Simon of Simon Distributing Co., Washington, D. C., had previously recommended that the National Production Authority grant a priority "second only to military needs" for such items. In its Chicago meeting, the group worked out a resolution covering the operation of a "priority plan" for such replacement parts, for the consideration of NPA, as follows:

"Every wholesale or retail distributor of maintenance and repair parts will be prohibited from ordering or accepting delivery of any such part if his inventory of such part is,

(Concluded on Back Page, Column 3)

Admiral Sees Sales Fight Ahead In Announcing Line

CHICAGO—With a new line of 10 refrigerator models, three electric range models, and an electric dehumidifier, Admiral Corp. is prepared for "a slugging match" for the consumer's dollar during the first quarter of 1951.

The plug-in dehumidifier, which will remove 3 gals. of water from a 10,000-cu. ft. space in 24 hours, by passing the air over a series of refrigerated coils, is designed for home use. It measures 30 in. high and 1-ft. square and is priced at \$149.95.

The refrigerator line, introduced by Lee H. D. Baker, vice president in charge of appliances, retained the full-width freezer and full-length cold features of the 1950 units.

Added to them were a newly reinforced door of bridge-type construction with three or more "Servador" shelves and a butter keeper. The butter keeper has a separate adjustable temperature control.

Other improvements consist of a single control dial allowing 13 temperature settings; wide freezer drawers providing for auxiliary frozen storage, and 8-in. deep plastic crispers for storage of such large foods as melons and cabbages.

Three models feature a pastel "glacier blue" color shade on the stain-resistant porcelain enamel interior of the door and interior facing. Metal trim is done in contrasting

(Concluded on Page 5, Column 1)

Pre-Dec. 1 Catalog Prices Made Subject to Review

WASHINGTON, D. C.—Prices shown in price lists or catalogs that were printed before Dec. 1, 1950, but not distributed until after that date will not qualify as being in effect on Dec. 1, it has been announced by the Economic Stabilization Agency.

This means, the agency explained, that price increases in such lists or catalogs would be permitted only under certain conditions, the controlling factor being the price at which the products were offered to buyers on Dec. 1, allowing for permissible price increases.

'Buying Rush' at Mart as Stores Try to Stock Up

Crowds Greatest Since '46; Producers on Allocations; Dealers Seek Answers

CHICAGO—"A buying rush is on!"

That was the decision rendered by manufacturers of refrigerators and other major appliances shortly after 8 a.m. Monday, Jan. 8, the opening of the mid-winter home furnishings markets.

The opening day rush broke all records for the marts and it seemed like a major share of the buyers and dealers were heading for the major appliances spaces. Nothing like it has been seen since 1946.

An analysis of the rush and attempts to place orders (the word "attempts" is used because most manufacturers are on allocations) revealed that the buying is "speculative." This is to say that retailers are fearful of (1) shortages; (2) some deterioration of quality in products produced later in the year. However, many retailers say consumer buying of appliances has stepped up sharply since the middle of December.

Those who have the capital are apparently convinced that stocking up on inventory is the best investment at this time. Those who don't have the capital would like to buy on floor plans or trade acceptance plans—if they can.

"The big questions at this market are 'what can we get and when can we get it,'" commented one manufacturer.

There was some questioning about possible shortening of lines but practically no discussion of prices.

Late in the afternoon of the first day an official of one of the largest refrigerator and appliance producers commented that "I haven't had one question today on prices." Most retailers are apparently willing to accept the manufacturer's interpretation of pricing under present conditions.

"We began to feel this buying pressure around the middle of December, when government regulations began to make it appear that there might be some drastic production cutbacks in the making," said one appliance company official. "It looks like a lot of dealers are hitting the markets to try and find out for themselves what the situation is going to be, and to try to pick up some merchandise wherever possible."

The manufacturers, of course, don't have all the answers. They are spending a good deal of time trying to re-assure retailers as well as they can. Many of them sincerely believe that cutbacks will not be nearly as severe as some have anticipated, and there is some thinking that there will be an abundance of merchandise over the whole year. But one executive summed it up for everybody when he said:

"I know pretty well what we're going to be able to make and how we're going to sell it in the first quarter, but after that only God knows—and I wouldn't be too sure about that."

A statement by P. M. Bratten, Frigidaire's general sales manager, declared that while "naturally, our production is being affected by the curtailment of certain vital materials, we do not anticipate major cutbacks during the first quarter. Beyond that period, the amount of production will be determined by any changes in the situation."

Production of major appliances in the first quarter of 1951 may be 15% below that of the fourth quarter of 1950 because of restrictions, but such a rate would exceed that of 1950 by at least 20%, said T. J. Newcomb, Westinghouse appliance division sales manager.

"Less flash" in refrigerator trim and accessories and material substitutions on many parts were foreseen

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'Offensive' TV Ad Copy Prompts NBBB To Issue 5 New 'Commandments'

NEW YORK CITY—The National Better Business Bureau has added five new "commandments" to the rules of advertising as a result of the pre-Christmas video advertising which aroused unprecedented public complaint.

In a bulletin just released to its membership, Edward L. Greene, general manager of the bureau, pointed out that the copy theme of this advertising, which pitted children against their parents, was scoffed at by psychiatrists, condemned by educators, and found to be more offensive to more persons than any previously published advertising known to the bureau.

Expressing the hope that all concerned with the welfare of advertising would profit from the experience, the bureau spelled out its lessons as follows:

"1. Advertising should not be used to undermine the child-parent relationship.

"2. Advertising should not be used to coerce parents into buying by falsely implying that failure to buy constitutes neglect of family responsibility and duty, and contributes to maladjustments.

"3. Advertising should not make use of inaccurate assumptions regarding psychological problems to instill guilt and inadequacy in the minds of readers.

"4. Advertising should not make use of themes tending to subvert the stability and unity of American

family life by sowing seeds of dissension, disunity, or distrust.

"5. Advertising should not be used irresponsibly as a law unto itself in disregard to the public interest."

McCreary Named Asst. to Clark, Artkraft's President

LIMA, Ohio — Appointment of Kenneth McCreary to the newly created position of assistant to Morton L. Clark, president, has been announced by Artkraft Mfg. Corp. here.

McCreary is expected to relieve Clark of many of his administrative duties and permit him to spend more time on top projects and problems.

McCreary has had long experience in executive roles outside the refrigeration industry. He was president of Goetz Gasket & Packing Co. of New Brunswick, N. J., and of a Goetz affiliate, the Azor Corp., when both of these firms were sold to Johns-Manville Corp. in 1947. McCreary remained with Johns-Manville for two years after the purchase of the companies.

Distributor Adds 5th Bldg.

DALLAS—Melito Electrical Supply Co., which also distributes electrical appliances, has completed a 10,000-sq. ft. building as an addition to its plant at Preston and Young Sts.

According to Jack Melito, vice president, the new building, the fifth in a unitized group, gives the company a total of 50,000 sq. ft. of floor space for its offices, shops, storage area, and display rooms.

Death Takes Simon, 67, Pioneer Manufacturer of Commercial Equipment

LOS ANGELES—Jake Simon, for many years owner of Refrigeration Distributors, manufacturer of Utility commercial equipment, died at the age of 67 years on Dec. 23, the company has announced.

Simon moved from Omaha, Neb., to Los Angeles in 1929 to form Kelvinator-Pacific, and became the Kelvinator distributor for southern California.

About two years later he relinquished the Kelvinator distributorship and changed the name of his firm to Refrigeration Distributors. He began using the trade name "Utility" and introduced the first self-contained meat case on the market, according to the announcement by the company.

He developed a complete line of self-contained commercial refrigeration equipment and marketed it throughout the western part of the country.

Simon is also claimed to be the first to produce and put on the market a dry bottle cooler and a self-contained walk-in, reach-in refrigerator.

He continued active in the business until the spring of 1950 when serious illness compelled him to sell it and retire. The business was purchased by Chapman Industries of California.

Chapman Industries is still operating the firm.

Simon is survived by his wife, Clara, and his daughter, Geraldine.

Reminder

The Air Conditioning & Refrigeration News \$1,000 contest for the most unusual air conditioning application submitted by an air conditioning dealer, contractor, or their employees has been extended for six weeks, it was announced in the Jan. 8 issue. The new deadline for entries is March 1, with all entries submitted by midnight on that date eligible to win.

Shroeder Heads New Materials Department At Remington Division

AUBURN, N. Y. — John E. Shroeder has been appointed manager of the newly established materials department of Remington Corp.'s air conditioning division, Herbert L. Laube, president, announced here recently.

The announcement explained that Remington's new material department has complete responsibility for all raw materials and components entering into the manufacture of Remington air conditioners — their procurement, stocking, disbursement to the production department, and inventory records, as well as the functions of receiving and shipping.

"The rapid growth of our air conditioning business, the accelerating trend toward material shortages, and the consequent advantages of a small, fast moving raw material inventory prompted the establishment, under an experienced head, of a separate materials department," said Laube.

For the eight years previous to joining Remington, Shroeder was purchasing agent of C. C. Bradley & Son, Inc., Syracuse, N. Y., manufacturer of refrigerated soft drink vending machines.

From 1937 to 1942, he was planning supervisor of Carrier Corp. Earlier, he was with General Motors.

Concurrently with the establishment of Remington's material department, Rolland J. Kaussner was promoted to the position of purchasing agent. A native of New Jersey, Kaussner joined Remington in 1946, upon completing his tour of active duty with the U. S. Army.

Automatic Washer Co. Production Down 30%

NEWTON, Iowa — Shortages of materials and purchased components are keeping production of Automatic Washer Co. products at 30% below the desired maximum, Frank Breckenridge, president, declared recently.

With demand far exceeding output, the company is finding it especially

Chicago Safety Conclave To Discuss Operation of Refrigerating Systems

CHICAGO—A full day of discussions concerning the operation of the refrigerating systems, pressure vessels, and boilers has been lined up for the Safety Conference to be held Jan. 18 at the Congress hotel here.

The meeting is being sponsored jointly by the Boiler and Refrigeration Department of Chicago, the Chicago Boiler Manufacturers Association, and insurance companies which insure boilers and machinery in the Chicago area.

"Does Chicago Need Legislation Limiting the Use of Water for Air Conditioning Systems" is the topic of one important panel that will include Loran D. Gayton, assistant city engineer; James McKeague, Chicago Boiler and Refrigeration Dept.; Wm. Bodinus, Carrier Corp.; Ray Thompson, Thompson Refrigeration Service; and James Hummer, Murphy & Miller, Inc.

Co-chairmen for the conference are Gerald Gearon, supervising mechanical engineer of the Boiler and Refrigeration Dept., and W. L. Killen, Chicago Boiler Manufacturers Association.

Following the opening of the conference at 9:15 a.m. by Gearon, there'll be a panel discussion on boiler repairs. At 11:15 "Rules for Sizing and Installation of Pressure Relief and Safety Valves" will be outlined in a paper by E. R. Teske of Heating, Piping, and Air Conditioning Contractors Association of Chicago.

Discussion of this paper will be presented by Nils Swanson, vice president, McDonnell & Miller, and H. A. Lockhart of the Bell & Gossett Co.

Mayor Martin H. Kennelly of Chicago will be the speaker at the luncheon.

First afternoon session, starting at 1:30 p.m., will be devoted to a paper on "Shop Inspection" by Dennis Scully, national board inspector, Hartford Steam Boiler Inspection & Insurance Co.

After the panel on water conservation to be held at 2:30, Anthony J. Mullaney, chief fire marshal of Chicago, will describe "Civil Defense Planning for Chicago."

There'll be cocktails and dinner next before C. O. Myers, secretary-treasurer of the National Board of Boiler Inspectors, presents a discussion on "Protection of Vessels on Low Pressure Side of Reducing Valve."

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J. P. SCOTT

Scott, L&H Sales Mgr., Becomes Vice President

MILWAUKEE—Johnston P. Scott, sales manager of A. J. Lindemann & Hoverson here, manufacturer of electric ranges, water heaters, home freezers, and refrigerators, has been made a vice president of the company, Eugene A. Lindemann, president, announced.

Scott, who was formerly sales director for the Universal Cooler Div. of Newport Steel Corp., joined the company several months ago and has been in complete charge of sales since then.

Chicago ASRE Pays Visit to B & G Plant

MORTON GROVE, Ill.—The Chicago section of the American Society of Refrigerating Engineers held its December meeting at the Bell & Gossett Co. plant here and made an inspection tour of the plant's facilities, the company announced recently.

In addition to watching the manufacture of Bell & Gossett's refrigeration and heating products, the engineers viewed a temporary B & G research and testing laboratory.

Observations and studies were being conducted there under glass to compare forced "Freon" flow coefficients with results previously obtained from direct expansion flow in water chillers.

A 40-ton compressor was operating in this circuit with abundant thermocouples, pressure gauges, and monometers for accurate recording of conditions.

A buffet dinner was served in the company's new engineering office in which B & G comfort controls let the outdoor wind and temperature govern the forced hot water circulation in radiant floor panels. A raging snow storm and high winds at the time gave the engineers a full demonstration.

NLRB Hands Down 2 Decisions

Unions Ordered To Reimburse Employees For Pay Lost from 'Disciplinary Action'

WASHINGTON, D. C.—The National Labor Relations Board, in two separate cases, ordered a union to bear the full cost of back pay for an employee whose discharge was caused by the union.

In each case, the unfair labor practice charge upon which the board's decision was based was filed by the employee only against the union.

In one case, the National Union of Marine Cooks and Stewards, (C.I.O.), was ordered to reimburse a seaman for wages he lost as a result of his discharge, which the board found was caused by the union instructing members to refuse to sail on any ship employing him after he had been blacklisted by the union as a "stoolpigeon."

In the other case, a local of the

A.F.L. Carpenter's Union was ordered to reimburse an employee of a Berkeley, Calif., Venetian blind manufacturing concern, for loss of wages resulting from her discharge, which the board found was caused by the union because she was not a member in good standing.

In another action, the board ordered reinstatement with back pay for an employee who was discharged because of his failure to pay a union "dues increase" of 50 cents a month, which the board found was actually a fine for failure to attend union meetings.

The discharge was made under a valid maintenance-of-membership contract, but a three-member majority of the board held that it violated the provisions of the Taft-Hartley Act which permits discharges for

loss of union membership only when the loss of membership results from failure to pay "the periodic dues and the initiation fees uniformly required" of all members of the union. The majority found that the "dues increase," which had been voted by the union members, did not actually become due until after a member had failed to attend a meeting.

Ruddy Freeborn Co., Ltd. Announces Name Change

BRANTFORD, Ont., Can.—Austin C. Campbell, vice president and general manager of Ruddy Freeborn Co., Ltd., here, recently announced that the company name has been changed to Hussmann Refrigerator Co., Ltd.

Campbell said the change was made to tie in the Canadian-manufactured products more closely with the well-established trade name of the parent company, Hussmann Refrigerator Co. of St. Louis, Mo.

Campbell emphasized that the parent company policy is to expand its Canadian operations.

Davis Named To Marketing Research Post with G-E Air Conditioning Dept.

BLOOMFIELD, N. J.—Appointment of Dr. William Carlton Davis as manager of marketing research of the General Electric air conditioning department has been announced by George K. Iwashita, manager of product planning.

Long active in the field of market research, Dr. Davis has been connected with the City College of New York for the

past 10 years. He has also been a management and marketing consultant for more than 20 years, recently being associated with Stewart-Dougall and Associates of New York.



Dr. W. C. Davis

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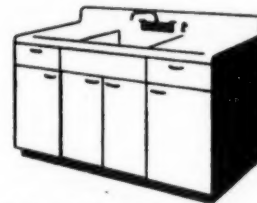
Food Freezers



Electric Water Heaters



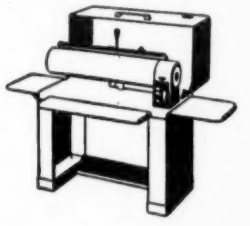
Commercial Refrigeration Equipment



Kitchen Cabinets and Sinks



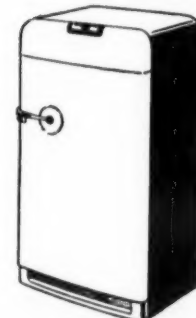
Automatic Clothes Dryers



Electric Ironers



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Refrigerators



Electric Ranges

The FRIGIDAIRE EXHIBIT

Furniture Mart • Chicago
January 8-19 • Spaces 508-A and 509-A

Western Merchandise Mart
San Francisco • February 5-9
Space 401

YOU AND YOUR FRIENDS are welcome any time at our exhibit. Make it your headquarters if you like or, just drop in and relax. You'll see an interesting display of Frigidaire Household Appliances, Air Conditioning and Commercial Refrigeration Equipment.

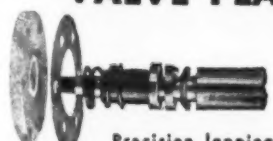
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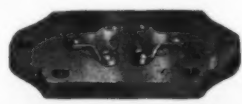
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Only Chicago valve plates have replaceable seats. Replacements for over 340 compressor models.

CHICAGO SEAL CO.
332 S. MYNIE AVE. CHICAGO 127 ILL.

ASHVE Show--

(Concluded from Page 1, Column 3) tendance is restricted to persons concerned with the purchase, installation, and use of air conditioning, heating, and ventilating equipment, according to show manager, Charles F. Roth.

Registration for the ASHVE convention starts on Sunday, Jan. 21, and continues through Thursday, the last day of the conclave. The technical program begins at 9:30 Monday in the Bellevue-Stratford.

Morning technical sessions will be held at the hotel and the afternoon sessions at Convention Hall. Seventeen papers and a symposium make up the technical program.

The symposium will be held on Wednesday morning and will cover the subject of "Man and His Relationship to Air." Nathaniel Glickman, assistant professor of medicine and research physiologist at the University of Illinois Medical School, will act as moderator.

Participants are Dr. Eugene F. DuBois, professor of physiology at Cornell University Medical College and medical director of the Russell Sage Institute of Pathology; Dr. Robert W. Keeton, head of the department of medicine, University of Illinois; and Charles S. Leopold, consulting engineer of Philadelphia.

Technical papers pertaining to air conditioning include "An Analysis of Air and Panel Cooling Systems" by Leopold; "A Survey of Electrostatic Precipitation" by E. A. Walker and J. E. Coolidge; "Theory of Earth Heat Exchangers for the Heat Pump" by L. R. Ingersoll, F. T. Adler, N. J. Plass, and A. C. Ingersoll; and "Fac-

tors Useful in Ground Grid Design for Heat Pumps" by George S. Smith. Leopold's paper will be presented on Monday morning and the others on Tuesday afternoon.

Robert C. Gross, chairman of the research committee, will make a report to the society during the Tuesday morning session.

Plant Layoffs--

(Concluded from Page 1, Column 3) materials as aluminum and copper, will necessitate cutbacks in production of some products and the laying off of approximately 500 temporary employees within the next few days.

At its Springfield, Mass., plant, Westinghouse Electric Corp. has laid off about 350 employees with less than two years service.

Apex Mfg. Co. has been forced to lay off about 200 workers, 100 at its Cleveland plant and 100 at Sandusky. C. G. Frantz, president, said the cutback affected about 7% of his working force, but it may increase in coming months.

The General Electric Co. vacuum cleaner division has laid off about 60 employees but anticipates no further cuts.

Crosley division of Avco Mfg. Corp. reported that it has dropped 1,000 men from its television and radio plant during the past month because of insufficient cobalt, cadmium, copper, steel, and nickel.

New Rochester Appliance Dealer

ROCHESTER, N. Y.—Handling a complete variety of appliances, Rochester Silvertown has been opened at E. Main St. and Union with Sid Schnitman as manager.

Deepfreeze Line--

(Concluded from Page 1, Column 2)

"Handy Bin" for salad greens and small vegetables; and a "Bottlestor."

A third model—DG-9—has three storage spaces in the door.

In addition to the Storador, models DW-11 and DW-9 have a freezer compartment with an insulated polystyrene door; a two-position frozen storage drawer; adjustable anodized aluminum shelves with gold trim; twin vegetable crispers; a combination dessert tray equipped with two lever-type ice cube grids and divider; and two additional ice cube trays.

The frozen storage drawer below the freezer compartment is designed to keep salads, puddings, and ice cubes, as well as frozen foods.

The freezer compartment with an insulated polystyrene door and the frozen storage drawer are also provided in model DF-11. Other features include two bottle shelves, heavy-duty galvanized wire shelves, twin vegetable crispers, and four plastic grid ice cube trays.

Models DG-9 and DF-9 have these common features: freezer compartment with insulated polystyrene door, anodized aluminum shelves, twin vegetable crispers, and four plastic grid ice cube trays. Model DG-9 has the three-shelf Storador, in addition.

Provided in model DF-7 are the freezer compartment with polystyrene door, automatic interior light, rust-resistant heavy-duty wire shelves, and full-width crisper. All models have a 10-point cold control.

The ranges, water heaters, and freezers in the 1951 line had been introduced earlier. However, one model of a new freezer line to be introduced in June was shown.

All Electric Housewares Covered by Ban on Copper

WASHINGTON, D. C.—All electric housewares are covered by the copper-use ban placed on "domestic electric appliances" by the National Production Authority, an NPA official indicated recently.

He pointed out that even when a manufacturer intends to use the copper for a functional purpose, which is permissible under the NPA's order, he had best apply to the agency for approval first.

He said the agency would determine in individual cases whether the copper using part in question is functional or not.

Dallas Show--

(Concluded from Page 1, Column 2)

Refrigeration and Air Conditioning Contractors Association are also co-operating in staging the conference.

The programs of technical talks will be held during the mornings of each of the three days, Jan. 26, 27, and 28, starting at 9 a.m. and finishing up at noon.

The exhibits will open at 1 p.m. Friday and remain open until 5 p.m.; then open again at 7 p.m. and stay open until 10 p.m. On Saturday the hours will run from 10 a.m. to 5 p.m. and on Sunday from noon until 4 p.m.

The conference is open to the entire refrigeration and air conditioning industry with service engineers, wholesalers, contractors, and refrigerating engineers particularly urged to attend, according to F. G. Coggin, general chairman of the conference.

Mart Review--

(Concluded from Page 1, Column 5) by Vale Freeland, director of department and furniture store sales for Westinghouse, in speaking before the National Retail Dry Goods Association meeting.

HOW SHORTAGES ARE HITTING PRODUCERS

What are the concrete evidences that scarcities of materials are bringing about contractions of lines?

Two major manufacturers of refrigerators have admitted that they are withholding at least one model from any commitments to buyers, because of lack of materials or restrictions on their use. The models are in both cases high-priced, top-of-the-line models.

A producer of automatic washers is said to have been forced to delay shipments of new models for three weeks because of a lack of solenoids.

One story going the rounds is that there is one manufacturer who has a warehouse full of freezers that cannot be shipped for the lack of a single vital part.

Among the shortest of all materials is styrene—used in the manufacture of synthetic rubber—which is the basic ingredient in polystyrene plastics. There are only three major sources, and they are cutting supplies to plastic moulders week-to-week, it is stated.

Polystyrene plastics are used in breaker strips and in the trim on many refrigerators, and also in meat trays, crispers, ice cube tray dividers, egg racks, some shelf parts, and other refrigerator cabinet components.

However, those who don't use plastic in such parts have generally used aluminum, which is not much more plentiful. Thus, the industry may have to face the necessity of producing stripped models not so much through government order as through necessity.

ROOM COOLER PLANS MAY BE DROPPED

A manufacturer of fans who has a room air conditioner design all set to go for the 1951 season may abandon plans for introducing it—because of inability to get parts.

"We can't even get a manufacturer of cooling coils to quote us," said a representative of the firm.

A representative of the General Electric appliance department admitted that there had been "some discussion of a contraction of lines," but expressed the opinion that no action or announcement would be forthcoming before March 1.

Manufacturers of ranges are inclined to believe that shortages of copper and restrictions in their use may hurt. Copper and copper alloys are used in heating elements on electric ranges, and in electric ignition devices for some gas ranges.

One range manufacturer is discontinuing production of a double-oven range to stay in line with the copper use order.

Weber Pays \$300,000 Bonus

LOS ANGELES — The Weber Showcase & Fixture Co., Inc., here recently paid profit-sharing bonuses totaling nearly \$300,000 to 222 supervisory and salaried employees, Karl Weber, president, has announced.

Karsten To Supervise G-E Commercial Engineers

BLOOMFIELD, N. J.—The appointment of W. F. R. Karsten as supervisor of commercial engineers at the General Electric Air Conditioning Department headquarters here, has been announced by G. K. Iwashita, manager of product planning.

He has been associated with the air conditioning department since its inception at Schenectady, N. Y., in 1932. He was assigned to development of heating and air conditioning equipment and was active in that phase until 1936 when he became district commercial engineer in the New York and New England districts. He was responsible for the development of new distribution, training and guiding distributors.

He returned to Bloomfield headquarters in 1940 as assistant to division sales manager and in 1943 was made division sales manager.

During the war he was responsible for development of sales of air conditioning and refrigeration equipment to the Navy and Maritime Commission, particularly of packaged equipment for ice cream which became so widely publicized among the armed services; water coolers and other products, and served with WPB.

He has served as vice-chairman of the committee which developed A.S.R.E. Recommended Practices for Installation of Refrigeration Equipment on Shipboard; as chairman of northern New Jersey section of A.S.R.E.; as chairman of various product sections of ACRMA.

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GREATEST FILTERING AREA
HIGHEST DEGREE OF ACTIVATION



AND HERE ARE 5 ADDITIONAL EXCLUSIVE CATCH-ALL FEATURES

1. They cannot powder!
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4. The unique, porous Catch-All cylinders are molded of minute particles of a highly efficient desiccant, the efficiency of which is greater than that of the same desiccant in granular form.
5. They dry down to a low end point... a point so low that any remaining moisture is absolutely harmless!

Size for size, the Sporlan Catch-All with its scientifically molded porous cylinder offers the greatest filtering area because its end surface is augmented by its complete cylindrical surface into a tri-dimensional filtering area, filtering out any foreign matter as minute as 9 microns with negligible pressure drop!

Sporlan Catch-Alls are activated to the highest degree of dryness after they are completely assembled by subjecting them to a temperature of over 500° F. for a minimum of four hours! The Sporlan Catch-Alls are then sealed with moisture proof seals to prevent any loss of activation before installation.

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SPORLAN Catch-Alls
the perfect filter-driers and GET PEAK PERFORMANCE ON ALL INSTALLATIONS

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Jan. 22-26 at
Philadelphia

Baker

AIR CONDITIONING
and REFRIGERATION

Admiral Line--

(Concluded from Page 1)

gold. The color motif is continued with a slight touch of blue color on the door crest with the name and door escutcheon done in gold.

The servador shelves and main portion of the refrigerator interior on these models are finished in conventional white.

Leading unit in the line is a 10.9-cu. ft. Dual-Temp combination home freezer and refrigerator, the only Dual-Temp model to be made this year.

Its freezing compartment reaches -20° F., Baker claims, while the storage compartment is engineered to maintain 38° F. with 85% relative humidity.

The new color and servador features have also been incorporated in the Dual-Temp. Another Dual-Temp feature is an ultra-violet Sun-Aire lamp in the general food compartment. Storage space is divided in the ratio of 2 cu. ft. of freezer space to 8.9 cu. ft. of normal storage.

Called the model 1191, the unit is priced at \$469.95.

HOW MODELS DIFFER

Three models have 11.3-cu. ft. capacity. The 1181, priced at \$369.95, has the blue and gold color motif. The 1171, priced at \$359.95, does not have the special color. The 1161, priced at \$329.95, has all the features of the other models except the special color and the butter conditioner.

These are followed by three 9.3-cu. ft. models which differ from each other in the same respects. They are the 981 at \$309.95; the 971 at \$299.95; and the 961 at \$269.95.

For small kitchens there are two 7.4-cu. ft. units. One, the 771 has the butter conditioner and all other deluxe features. It is priced at \$259.95.

The other is called the model 761 and is priced at \$239.95. It does not have the butter conditioner.

At the low end of the line is a 7.5-cu. ft. refrigerator that has a side mounted evaporator and lacks the servador and butter conditioner features. It is called the model 711 and is priced at \$199.95.

MONOTUBE UNITS ON RANGES

The three electric range models were introduced by Willie Mae Rogers, Admiral's chief home economist. She pointed out that emphasis has been placed on newly designed monotube surface heating units. Each of the models also features a special "hot spot" high speed heating unit which reaches maximum heat in an extremely short period of time.

Another new feature is a counter-balanced oven door which automatically adjusts to any position, Miss Rogers said. New door handles are of heavily chrome-plated steel.

Admiral features retained in the line are the rotary roaster for barbecuing, the flexo-heat control which regulates degrees of heat as a faucet does water, and the pull-button timer for automatic cooking.

The model U-1, priced at \$289.95, contains a single oven; the model U-2 at \$349.95 has a single oven and warmer drawer; and the model U-3 at \$399.95 has two ovens.

Ross D. Siragusa, addressing the sales conference, said that Admiral expected to produce as much during the first quarter of 1951 as it did in either the third or fourth quarters of 1950.

He stated that Admiral in 1950 had topped every production and sales goal set despite manpower and materials shortages. He asserted that sales doubled the 1949 total to exceed \$230,000,000 or \$400,000,000 at the retail level.

ASA Publishes Standard Test Code for Apparatus Noise Measurement

NEW YORK CITY—The American Standard Test Code for Apparatus Noise Measurement, Z24.7-1950, has just been published by the American Standards Association.

This standard establishes uniform methods of conducting and recording sound-level tests on apparatus. It is intended as a guide for those who use sound-level meters that meet the requirements of the American Standard Sound-Level Meters for Measurement of Noise and Other Sounds, Z24.3-1944.

The standard includes procedures for factory tests of equipment, field investigations, and sound-level specifications. The section devoted to factory tests contains methods for measurement of direct air-borne noise; reflected sound; ambient sound; apparatus mounting; location of microphone, including tentative distances from the microphone for specific types of equipment; standing waves; record of measurements; and noise measurements.

For field investigations the method of measurement of apparatus and ambient sound level, the difference between apparatus and ambient sound level, and the effects of environmental conditions are furnished.

A committee sponsored by the Acoustical Society of America under the procedures of the American Standards Association developed this standard. Among the industries represented were: air conditioning, refrigeration, heating, and ventilating; electric light and power; radio; and fan manufacturers.

Copies of the standard may be obtained from the American Standards Association, 70 E. 45 St., New York 17, N. Y., at 50 cents per copy.

Des Moines Firm Bought By Airtemp Distributor

OMAHA, Neb. — The Sidles Co., distributor of Airtemp air conditioning and refrigeration equipment, household appliances, automotive supplies, and allied lines, has purchased the stock of the Herring-Wissler Co. at Des Moines, Iowa, it was revealed by Harry B. Sidles, president.

Sidles said the Des Moines company is 40 years old and one of the oldest equipment wholesalers in Iowa.

Herring-Wissler has branches at Centerville, Newton, Boone, and Perry, Iowa. William E. Wissler will remain as president of the company, which will retain its present name.

Acquisition of Herring-Wissler extends the operations of the Sidles company from Des Moines to Scottsbluff in western Nebraska. In addition to the headquarters plant here, there are Sidles branches in Lincoln, Beatrice, Falls City, York, Fremont, Norfolk, Grand Island, Hastings, Holdrege, McCook, North Platte, Scottsbluff, Chadron, and Valentine.

James R. Smith Covers Northern Ill. for Maytag

NEWTON, Iowa—James R. Smith, Springfield, Ill., has been named a Maytag regional sales manager for 10 counties in northern Illinois. He will serve under the Chicago branch office of The Maytag Co. which is managed by George W. Jarden.

Counties included in Smith's territory are: Boone, Carroll, DeKalb, Jo Daviess, Kane, Lee, McHenry, Ogle, Stephenson, and Winnebago.

Crosley Div. Adds Three Models To Refrigerator Line

CINCINNATI—Crosley Div., Avco Mfg. Corp., announced it was going ahead with the addition of three new models to its 1951 Shelvador refrigerator line.

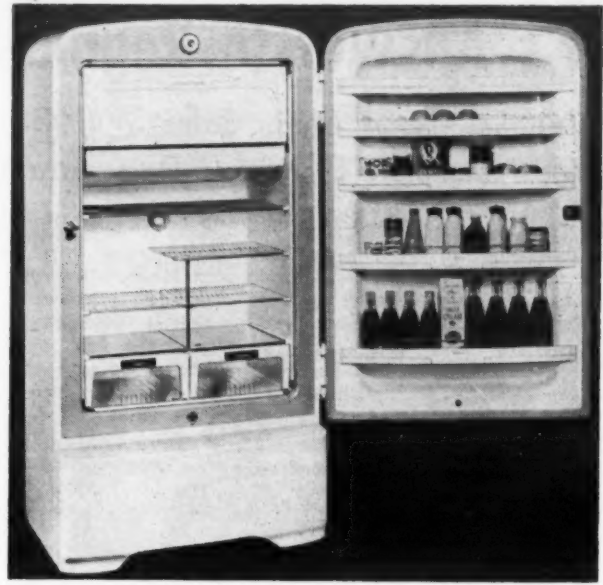
The company said it would suggest retail prices in "fair trade" states that would represent "a further effort to help hold the line on appliance prices."

W. A. Brees, Avco vice president and Crosley general sales manager, said that when the 1951 line of 11 models was introduced in September, the company planned to add three models in January, and these were engineered during the fall. He emphasized that the new models, now in production, were intended to complete the line, without replacing any existing models.

Stating that the company was holding to the prices set in the original plans, Brees pointed out that the new SMC-9 offers 9.5 cu. ft. of storage space and deluxe design and features for a suggested retail price of \$299.95.

The SMC-9 has a large full-width horizontal freezer, with a special drawer for ice trays which leaves the freezer compartment free for storage. It has two sealed crispers, flexible shelf arrangement, accommodation for tall bottles, recessed shelves in the door, chrome trim, and trigger action door handle.

A new 11-cu. ft. model, the DC-11,



NEW SHELVDOR: Crosley's new SMC-9 has 9.5 cu. ft. of storage space with deluxe features for a suggested price of \$299.95. It is one of three new models being added to the Crosley line at this time.

also incorporates the horizontal freezer and other features, plus a "Butter Safe," transparent heat holder, and seasonal control. The suggested retail price is \$369.95.

A third new model, the CC-9, has a storage capacity of 9.5 cu. ft. and has, in addition to all features contained in the DC-11, "Soft-Glo" styling. The suggested retail price of the CC-9 is \$349.95.

Meskill Heads G-E Fan Sales

BRIDGEPORT, Conn. — David T. Meskill has been appointed sales manager of the General Electric Co.'s fan division, it has been announced by R. E. Boian, manager of the heating device as well as the fan divisions.

Kuneau Named Director of Philco Public Relations

PHILADELPHIA — John Adams Kuneau has been appointed director of public relations of Philco Corp. and its subsidiaries and named to the management operations committee, it was announced by William Balderston, president of the corpora-

tion. Kuneau was formerly vice president of J. Walter Thompson Co. where for the past 10 years he was account executive for several well-known national and international companies.

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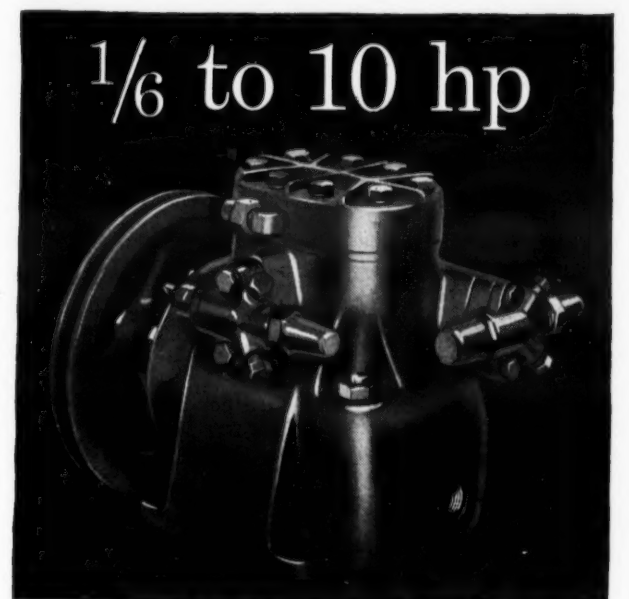
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ment is comparatively inexpensive. For best results, be sure to recommend one of the new, top-quality G-E compressor bodies. They're easy to install—they fit most condensing units and types of equipment. And don't forget—it's easier to sell your customer on a replacement job...when he knows he's getting General Electric quality and dependability. G-E compressor body prices are right. Check them today!

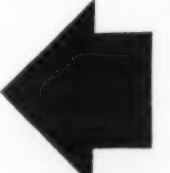
CHECK THESE G-E COMPRESSOR FEATURES!

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KRAMER TRENTON CO. Trenton 5, N. J.

One Dealer's Answer to Regulation 'W'

Tougher Terms Mean Sales Will Go to Store Giving Prospect Most Complete Story and Demonstration, Veteran Retailer Says

By John O. Sweet and George M. Hanning

PORT HURON, Mich.—"Now is the time when salesmanship will really be tested. Salesmen must give more complete demonstrations and do a better selling job than ever before."

That was the chief reaction of Darwin Kimball, veteran Port Huron appliance dealer, to the current tightened credit conditions.

"The store where the consumer gets the most complete sales story is the place where he's going to buy," commented the owner of Kimball Radio & Appliance Store. "You know yourself that anyone thinks a lot harder when he has to plunk down a large cash payment to buy an appliance than when he only has to sign a contract."

"There is more money in circulation and more people employed than ever before. So the dealer who has the right product and a real selling organization is going to come through very nicely. And I think we will have a sounder appliance business than ever before."

Practicing what he preaches, Kimball has been devoting more attention to the sales training of his men.

Like many another appliance dealer, Kimball's biggest problem has been—as he put it—"to get salesmen who will go out and work like they did before the war."

"It's the hardest thing to get salesmen to go out and make contacts," he lamented. "If they're going to make sales these days, they've got to see people in their homes and use showmanship to turn them into prospects."

'SALESMEN DON'T FIGHT'

Kimball maintained that there was "a lot more fight to this business before World War II than there is now. Salesmen don't fight for a sale the way they used to."

One of Kimball's own salesmen provided a good illustration of what can be done with even a little prospecting. This man had been trading for some time with a certain grocer when, one day, he casually mentioned refrigerators and the gloomy supply situation.

During the conversation, the grocer showed interest in a certain model of refrigerator the salesman handled. Grasping the opportunity, the salesman quickly convinced the grocer he should buy now—and was rewarded with a cash sale.

Kimball should know what he is talking about, being one of Port Huron's oldest appliance dealers in terms of years in business. While still in high school in the early '20's, he worked on refrigeration service for his father and sold radio sets.

Later, in 1928, he went into business for himself as an appliance dealer. In 1931, he obtained the Frigidaire franchise and has handled that line ever since.

The dealer claims several "firsts" for the Kimball firm. He recalled that the store sold the first all-electric radio set here, pioneered Philco products in the area, sold the first electric Kelvinator refrigerator in town, and installed the first Bendix automatic washer in Port Huron.

The Kimball company has occupied the same building on a side street in the downtown district since 1919. At that time, it used half of the 50-ft.-wide structure.

In 1937, the company purchased the entire building, remodeled the store, and put an addition on the back for warehouse space. The other half was rented to another concern. After the war, the firm took over the whole building and made it into a modern appliance center.

The store today has an eye-catch-

ing exterior and display room. The name "Kimball Appliances" in individual block letters extends across the front of the building above the all-glass windows. At night, the letters are silhouetted by concealed lights.

Above the store name are the words "home appliances" and "commercial equipment" (a minor part of the store's business) in neon lights. Topping all this is a Frigidaire sign, also in neon lights, which extends out over the sidewalk.

Inside, the display room is done in green, pink, and chartreuse with fluorescent and spot lights to accent certain displays. Between the display room and the warehouse space, are a belt of small rooms. One room is used to display the more present-

(Concluded on next page)



Side Street Store Has Main Street Look

WELL AND SMARTLY IDENTIFIED as a household appliance center is the modern home of Kimball Radio & Appliance Store in Port Huron, Mich. Although located on a side street, the store can hardly be overlooked with its eye-catching signs, all-glass front, and attractive, well-lighted showroom.

INTERNATIONAL



Model HA-92: New luxury leader of the line. "Pantry-Dor" and built-in butter-keeper. Stainless steel shelves. Full-length cold. Huge 50-lb. freezer locker. Magnetic bottle opener. Sensationally priced at a suggested \$369.95.

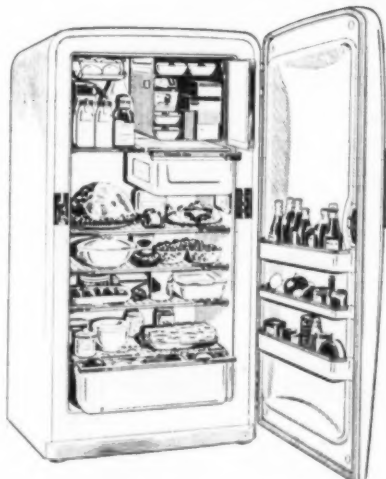


COLOR-KEYED to Kitchens

Here's the feature your prospects have waited for... the feature that puts more profit in your sales! NEW—door handles in a choice of 10 decorator colors! Gleaming plastic plaques that are easily interchangeable... to suit any homemaker's individual kitchen color scheme. A potent salesman for YOU!

Model HA-84: "Pantry-Dor" provides extra, easy-to-reach storage. Other special IH quality features to make a real value at a suggested \$329.95.

Model UA-87: A real extra-space buy! Big, 15 sq. ft. of scientifically arranged shelf area. Outstanding value for any homemaker at a suggested \$269.95.



Model UA-95: Spacious, cold-to-the-floor storage with three-shelf "Pantry-Dor." Other extra-duty features for BIG value at a low suggested \$299.95.



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(Concluded from preceding page)

able used appliances taken in trade while at the other side of the building is a television "studio" decorated like a modern living room.

OWNER SEES ALL

In between are a "sales closing" room for salesmen's use and Kimball's own office. This office is situated in such a way that Kimball commands a view of the front entrance and a good share of the display floor. From this vantage point, he feels he gains effective control of store activities.

To the rear are the warehouse facilities and in the basement are the service and parts departments as well as the finishing department for traded-in appliances.

Kimball doesn't have any paint spraying facilities, but does have used appliances cleaned and touched up. However, he was considering adopting a plan used by a Waukesha,

Wis., Frigidaire dealer who has a working agreement with a painter that has proved very satisfactory. Under this arrangement, this dealer acquires a number of used appliances, has his men sand them down, and then takes them to the painter. The painter can run them through the paint spray booth in a very short time.

As this method takes up very little of the painter's time and does not involve any effort on his part except for painting, the dealer gets the job done at very reasonable rates.

Having all of his facilities under one roof helps Kimball to streamline his operation and keep costs to a minimum.

One of the advantages of being located on a side street location, according to Kimball, is that it offers room for trucks to get to the store easily for receiving and shipping of appliances.

Kimball said that he has often debated with himself over the possibility of moving his store to Military Ave., Port Huron's main thoroughfare, rather than remaining where he is.

WHY HE WON'T MOVE

But, he always concluded that the high acceptance for his brand of appliances, the lengthy list of customers he has built up in 20 years of handling the Frigidaire line, and the fact that he has had the line exclusively all that time, would bring customers to the store whether it was on the main street or not.

Drawing on his own experience, Kimball would advise any small town dealer to get an exclusive franchise for a good brand of appliances and hang on to it.

"Build up that line," he said, "and it will be your bread and butter. You will be able to secure repeat business and build up a clientele that will give you security that you cannot get in any other way."

Kimball's organization today consists of four salesmen, two servicemen, one delivery man and helper, and two office girls.

He said that the salesmen are compensated on the standard Frigidaire plan. He considers this plan to be a fine and fair one for both the dealer and the salesmen.

Under it the salesmen get a weekly salary plus a small commission. If they make their quotas for the month, they get a 1½% bonus on their sales. At the end of the year, if they have attained their annual quota, they get an additional 1% bonus.

This system, according to Kimball, assures the salesman of a steady income and yet gives him an incentive to make his quota each month and to stick with his job in order to collect the annual bonus at the end of the year.

Mich. Store Appoints Buyer

GRAND RAPIDS, Mich.—The Boston Store here has announced the appointment of Bert Seynders, formerly floor manager of Central Electric Co. in Battle Creek, Mich., as buyer manager of white goods appliances to succeed Paul Johnson, who left the company to join a local appliance firm.

Desire for Freezers Remains Strong Among Farmers In Nebraska

LINCOLN, Neb. — Although approximately 45% fewer Nebraska farmers indicated they would purchase electrical appliances for the home in 1951 than in 1950, the number planning to buy home freezers was the same as for 1950, it was shown in a survey on Nebraska farm buying intentions for 1951 just completed by *The Nebraska Farmer*, published here.

The survey was based on 716 questionnaires returned by farmers from every section of Nebraska. Of this number, 11.7% indicated they planned to buy home freezers in 1951, or the same percentage as in 1950 when a similar survey was made. Since there are 111,756 farm homes in the state, this percentage would indicate 13,075 potential home freezer sales during the coming year.

Only 7% (7,823 farm homes) indicated they would purchase electric refrigerators during the year as compared with 9.9% during the preceding year.

Two and one half per cent (2,794) said they would buy mechanical refrigerators utilizing gas, compared with 6.9% in 1950, while 2.5% reported they would make liquefied petroleum gas installations as against 8.4% so indicating a year earlier.

Less than 1% of the farmers, representing 894 farms, said they would install air conditioning this year. Last year the percentage was listed as 1.5.

Home appliances expected to be purchased, according to the survey, are listed with 1951 percentages first, followed by 1950 figures:

Electric range, 5.4 and 7.2; coal-wood range, 2.0 and 4.5; gas range, 4.3 and 9.9; other kinds of ranges, 0.3 and 1.2; electric washing machine, 6.4 and 10.2; automatic washer, 2.7 and 5.1; clothes drier, 2.4 and 1.2; ironer, 2.7 and 6.3; dishwasher, 1.0 and 0.9; and vacuum cleaner, 6.8 and 11.4.

It will be noted that of the home appliances listed, only electric clothes driers, dishwashers, and built-in kitchen fans were designated as more in demand by Nebraska farmers in 1951 than for the preceding year.

One per cent (representing 1,118 farms) said they would buy electric milk coolers, as compared with 1.2% a year ago.

Two Gen. Mgrs. Named In G-E Apparatus Dept.

SCHENECTADY, N. Y.—John W. Belanger and Nicholas M. DuChemin have been named general managers of the Large Apparatus Divisions and Small Apparatus Divisions, respectively, of General Electric Co.'s Apparatus Department, according to Ralph J. Cordiner, company president.

Both in their new capacities will be responsible to Henry V. Erben, G-E vice president. Formerly, they were assistant general managers of the department.

The appointments mark an integration of the Apparatus Department into three basic units, according to Erben. These are the Large Apparatus Divisions, the Small Apparatus Divisions, and the Marketing Divisions.

Marketing operations for all products of the department will continue under Chester H. Lang, company vice president and manager of marketing for the department.

Purvis Heads Dealer Sales For Youngstown Kitchens

WARREN, Ohio — J. W. Purvis, formerly zone sales manager in the Detroit, Chicago, and St. Louis area for Youngstown Kitchens, has been appointed assistant sales manager and manager of dealer sales for the company.

C. D. Alderman, Youngstown's general manager of merchandising, who made the announcement, also announced that D. F. Sembach will assume Purvis' previous post. He will maintain his headquarters in Chicago.

Both Purvis and Sembach joined the company in 1940 as regional sales managers.

HARVESTER

Introduces 7 Sensational

1951 REFRIGERATORS

NEW...AND YEARS AHEAD

they're femineered

SPACE 510-A American Furniture Mart



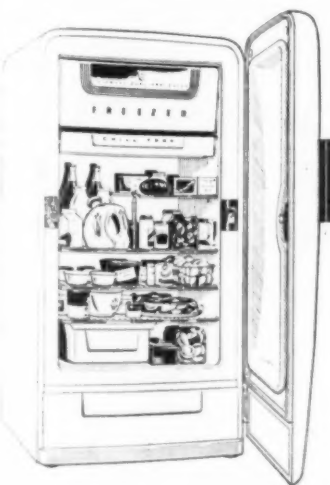
INTERNATIONAL HARVESTER—First In Freezers... First In Femineering—now introduces a great new refrigerator line for 1951. Seven sensational models... *Years Ahead* in Design... *Years Ahead* in Engineering... *Years Ahead* in Features with a Function!

YES, THE FEMINEERED LINE for '51 is brand new... beautiful... budget-priced. A line

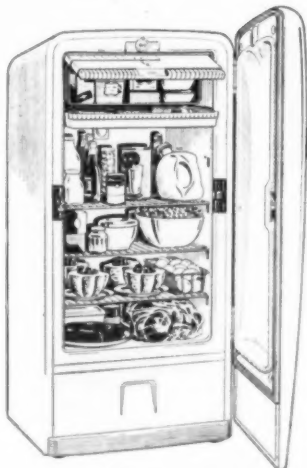
you'll be proud to handle... a line to satisfy the requirements of every homemaker... a line promoted for International Harvester Refrigeration Dealers with punch and persuasion... in the biggest national magazines, in key-city newspapers... with a new local cooperative merchandising program that's out of this world. Yes, once again, in '51, the Femineered Line is the Talk of the Industry!

Designed...
Priced...
Promoted...

to SELL!



Model HA-83: Super-model for super-savings. Full 8.4 cu. ft. capacity at a suggested \$274.95.



Model HA-74: Extra-large storage space in small floor space. Price leader of the line at a suggested low \$219.95.

Model HA-82: Full 8.2 cu. ft. capacity in small 25" x 25" floor space. Horizontal freezer holds 35 lbs. Buy of the year at a suggested \$239.95.



For information on available dealerships, consult the nearest International Harvester district office, or write

INTERNATIONAL HARVESTER COMPANY • 180 N. Michigan Ave., Chicago 1, Ill.

International Harvester Also Builds McCormick Farm Equipment and Farm-all Tractors... Motor Trucks... Industrial Power... Home Freezers

Philco Introduces 1951 Lines of Appliances But Forecasts Tapering Production Schedules

CHICAGO—Automatic defrosting, done daily "so fast that frozen foods stay frozen," and storage capacities up to 13 cu. ft. are among highlights of the 1951 refrigerator line introduced by Philco Corp. at its recent mid-winter national sales convention.

The Philco distributor organization also saw a new nine-model electric range line featuring a new built-in "jiffy griddle"; four new 1951 air conditioner models; and two 1951 chest-type freezers—a new model with 8.1-cu. ft. capacity and a 12.5-cu. ft. model.

The 8.1-cu. ft. freezer is priced at \$325; the other model at \$399.95. Price ranges on the other items are as follows: refrigerators, \$209.95 to \$479.95; ranges, \$169.95 to \$449.95; air conditioners, \$339.95 to \$985.

During the meeting, William Bal-

derston, president, announced that Philco had just completed the biggest year in its history, with total sales of approximately \$335,000,000.

Television showed the most substantial increase of all Philco products, with 1950 production and sales 300% as great as in 1949, Balderston reported. Electric refrigerators and other products of the Appliance Div. showed the second largest gain.

After allowing for Federal income and excess profits taxes, earnings of Philco in 1950 were approximately \$4.50 per share on the company's common stock, which was split two-for-one in December.

"The prospect for 1951 is a gradual tapering-off of civilian business and a substantial increase in production for the government in our electronics and appliance divisions," Balderston

stated, adding:

"Our defense job will always be first and foremost with us. At the same time, we propose to follow the advice of our leaders in Washington and keep our civilian business rolling at the highest possible level.

"Philco foresaw the present raw materials shortage situation many months ago, and at that time inaugurated a material conservation program. Each division of our company was given the assignment of reducing the use of scarce materials in all products while maintaining the highest standards of quality.

"We have made very great progress along these lines so that we will be able to save large amounts of copper, cobalt, nickel, and aluminum. These economies, as soon as they can be put into effect, will contribute to keeping the civilian economy going and maintaining employment for our 23,000 employees until defense production requires their services. . . .

"Philco Corp. is prepared to play an even more important part in this defense program than in World War II. . . ."

11 REFRIGERATORS SHOWN

The 11 new refrigerators in the 1951 line offer more capacity, more convenience, and more economy and efficiency of operation, according to James M. Skinner, Jr., general sales manager of the Philco Refrigeration Div.

Featured in the line are three new two-door models, with capacities of 8.2, 10.2, and 12.1 cu. ft. Prices of these duplex models, which offer completely automatic defrosting, are said to be lower than for previous conventional two-door models.

A new design with a single refrigerating system for both compartments of the duplex refrigerators reportedly results in cooling both freezer and main food compartment, and elimination of wall sweating.

"Excess moisture cannot condense on the walls," the company said. "It is frozen on the evaporator and regularly eliminated by the Philco automatic defrost system."

Automatic defrosting in these duplex refrigerators is done by a built-in clock, defrost heaters, and a drainage and evaporating system which defrost the entire refrigerator once a day. The whole process takes only three to 10 minutes, and foods stay frozen, it was stated.

1951 REFRIGERATOR PRICES

Prices of 1951 Philco refrigerators are:

Model No.	Capacity Cu. Ft.	Retail Price*
712	7.2	\$209.95
712 (left-hand door)	7.2	219.95
713	7.2	239.95
912	9.0	259.95
915	9.0	299.95
1112	11.0	329.95
1115	11.0	359.95
1312	13.0	399.95
1315	13.0	439.95
Deluxe two-door models with separate freezer and refrigerator and automatic defrost:		
818	8.2	\$379.95
1018	10.2	439.95
1218	12.1	479.95

*Zone 1.

The two-door refrigerators also include such features as adjustable shelves, a meat storage drawer, double crisper drawers covered with glass, and six-position cold control.

To meet the demand for larger refrigerated capacity, new "long-door" models in the 1951 Philco line are available in sizes of 13, 11, and 9 cu. ft. All these refrigerators are styled to provide maximum storage space while occupying minimum kitchen space, with improved insulation, and the power unit tucked away in a rear corner at the bottom.

"These new Philco designs have also made possible outstanding values in larger capacity at prices comparable to last year's levels, despite greatly increased production costs," the company declared.

All the new refrigerators, including two models in each of the 13, 11, and 9-cu. ft. sizes, provide a built-in horizontal freezer locker, and are refrigerated from top to bottom. Other features include transparent polystyrene quick chiller trays and meat keepers, covered crisper drawers for fresh vegetables and fruits,



MODELS MODEL MODELS: The one on the left points up how the "jiffy griddle" adds 50% more cooking surface to the 1951 Philco ranges. The one on the right is showing how the shelves can be adjusted in a model 1218 two-door Philco refrigerator which also features automatic defrosting.

and fully adjustable shelves.

The smallest refrigerators in the line, two models with 7.2-cu. ft. capacity, have the full-width horizontal freezing compartment, double utility trays for meat storage or for use as a vegetable crisper, self-closing door latch, full-width corrosion-proof steel shelves, and six-position cold control.

RANGES HAVE 'JIFFY GRIDDLE'

The new electric ranges were introduced by Robert J. White, sales manager of Philco's Electric Range Div.

One of the features of the line is the new built-in "jiffy griddle," a unit that slides out of the range and utilizes the heat of the broiler element for surface cooking. The griddle, which is claimed to add the cooking capacity of two extra surface units, cooks griddle cakes, eggs and bacon, hamburgers, and many other foods without pots or pans.

A splash guard keeps spatter off the front of the range, and a detachable grease cup catches all excess grease.

A further feature of the griddle is that it can be used in combination with a broiler, placed below the griddle, to do two cooking operations at once. For instance, it can be used to make pancakes, while sausages are broiled with the heat of the same broiler element.

A second new convenience of several range models is the use of five colors for the five heats on each surface unit switch. As the switch is turned to any heat, the indicator above it lights up in a brilliant color showing the heat selected.

The Philco "broil-under-glass" oven is now incorporated in seven of the nine ranges, including an apartment-size 21-in. model. In this oven, a tempered glass shield is suspended between the broiler coils and the food to prevent spattering of grease on hot coils and thus permit smokeless cooking.

Most of the ranges include a big "banquet" oven with fully-insulated walls. Several models have a second "thrill" oven for one-dish cooking or fast baking.

In all seven 40-in. models, the control panel is hinged. When released, the entire panel swings face down on the range work-top. The fuses are exposed for ease of replacement. The back cover can be removed for access to wiring and switches.

1951 RANGE PRICES

The ranges are priced as follows:

Model No.	Width In Inches	Retail Price
212	21	\$169.95
214	21	199.95
411	40	219.95
413	40	239.95
414	40	269.95
415	40	299.95
416	40	379.95
417	40	399.95
418	40	449.95

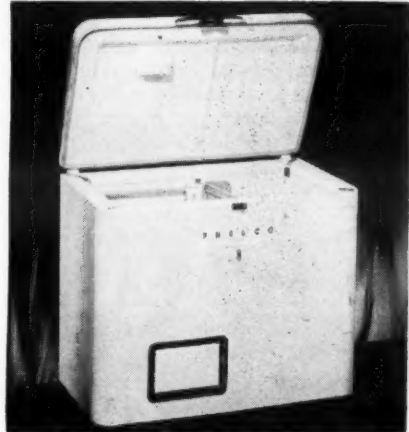
Deluxe accessory kit, including automatic timer, clock, and lamp, for models 212 and 214 is priced at \$25.

AIR CONDITIONERS COMPLETELY NEW

In the room air conditioner field, Philco introduced a completely new line for 1951, according to Jack Cherry, sales manager of air conditioners and freezers.

This year, Philco models feature an improved "silent service" which offers operation "quiet as a whisper," Cherry said.

All models contain hermetically sealed motor-compressor units. They



REDESIGNED STORAGE SPACE: A sloping front supplies more storage space at the top of this Philco FH-81 home freezer while the interior design brings two thirds of the space above knee level.

include ½ and ¾-hp. window-sill, air-cooled models for small rooms (230-430 sq. ft.), a 1-hp. console air-cooled model for rooms up to 550 sq. ft., and a 2-hp. water-cooled console model for larger stores, offices, and homes (up to 1,500 sq. ft.).

The air conditioner models feature adjustable grilles which not only deflect the air toward the ceiling or the floor, but also to either side, if desired. The water-cooled model has been designed to serve more than one area at the same time with the addition of basic ductwork, cooling two rooms or overhead areas when installed in the basement.

Prices of the air conditioners are:

Model No.	Retail Price*
50-G	\$339.95
50-G Ivory	339.95
75-G	399.95
75-G Ivory	399.95
100-GC	685.00
200 GCW	985.00

*Zone 1.

SLOPING FRONT ON FREEZERS

A newly-designed sloping front which supplies more storage space at the top, an interior design which is said to bring over two thirds of this space above knee level, and "easy-lift" storage baskets are among the 1951 Philco freezer advances announced by Cherry.

"This new freezer design eliminates awkward stooping or bending and unnecessary unpacking to locate frozen food packages placed at the bottom," Cherry said.

The freezers have counterbalanced hinges. The lid latch provides for a padlock if desired. An interior light is built into the lid.

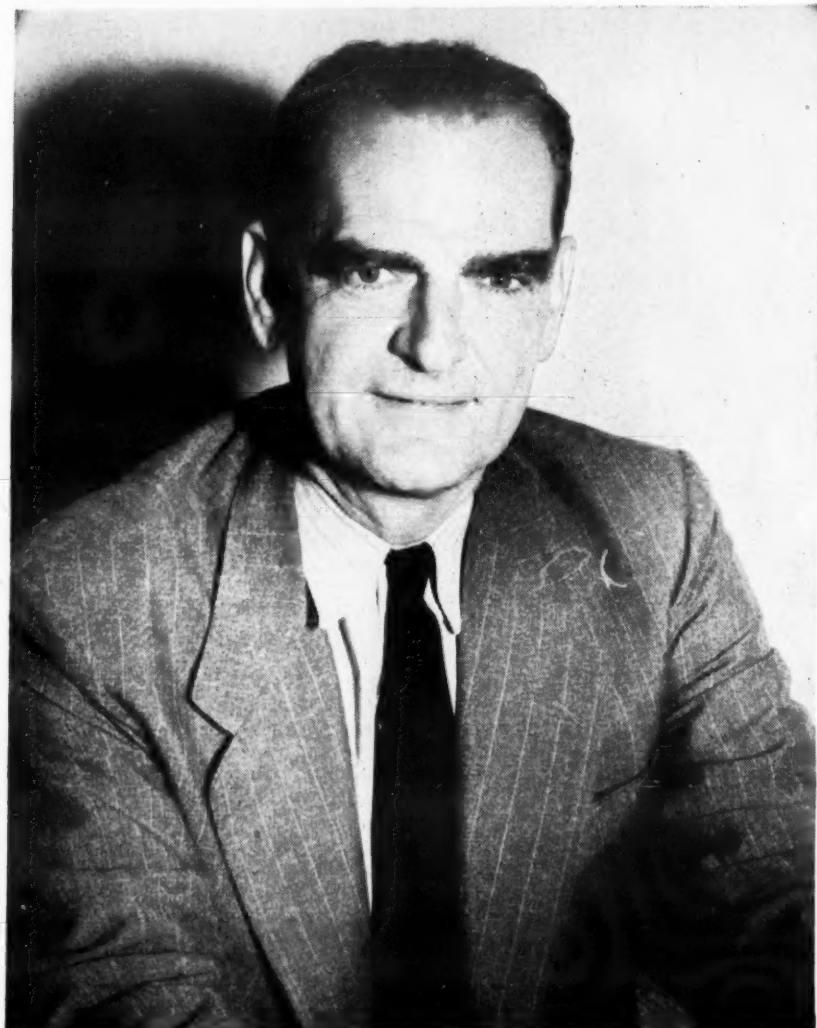
The line also features a guardian bell as a warning signal, which rings automatically when the freezer temperature rises to 12° above zero. Battery-operated, the warning signal will ring loudly for 48 hours, or until the alarm switch is turned off.

The line features an 8.1-cu. ft. model which will hold up to 320 lbs. of frozen foods. This freezer is divided into two separate compartments, each of which can be regulated for standard zero degree storage, or adjusted to "sharp freezing," a setting of -15°.

Model FH-81 is 36 in. high, 29½ in. deep, and 42 in. wide.

Philco's 12.5-cu. ft. freezer, model EH-121, includes the same major design improvements and features, and also provides a plastic utility tray for smaller packages, fruits, vegetables, and other foods too small for inclusion in the stainless, corrosion-resistant storage baskets.

This model will hold up to 480 lbs. of frozen foods and is divided into three compartments.

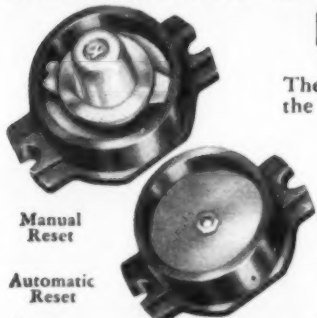


Commercial Service Manager Praises KLIXON Protection

YORK, PA.: William G. MacBride, Commercial Service Manager of the York Corp., was quick to give credit to Klixon Protectors for reducing their service problems.

"The application of a Klixon Inherent overheat protector to the solenoid valve in our ice cube machine has unquestionably reduced our service problems on this equipment. Our experience with Klixon Protectors on our hermetic refrigeration compressors has been outstandingly good, also. We think a lot of Klixon Protectors."

Klixon Protectors Reduce Service Calls and Repairs by Preventing Motor Burnouts



The Klixon Protectors illustrated are built into the motor by the motor manufacturer. They keep motors in such equipment as refrigerators, oil burners, washing machines, etc. working by preventing the motors from burning out. Reduce service calls, minimize repairs and replacements by specifying that equipment has motors with Klixon Protectors.

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KLIXON



United States Department of Agriculture's Exhibit at the restaurant show featured foods which could be served cheaply because of low cost.

Southeastern Restaurant Show

Refrigeration and Air Conditioning Exhibitors
Experience Unprecedented Number of Orders

WASHINGTON, D. C.—The annual Southeastern Regional Restaurant Association Exposition, held at Washington's Hotel Statler recently, brought forth more orders for air conditioning and refrigeration equipment than any similar event in the area's history, according to participating firms.

Over 7,000 association members and their guests attended one or more sessions of the four-day exposition. They and thousands of Washingtonians paraded past the 70-odd booths which had been set up on the Statler mezzanine to show new products or demonstrate how old ones could be readily adapted to hotel and restaurant use.

VISITORS EAGER TO BUY

One local distributor for refrigeration devices said: "We were booking orders before we could get our exhibit unpacked, and they were still ordering after we packed up the last of our equipment when the show ended."

Another said: "It was the most successful demonstration we have ever staged. Here were a group of people who were eager to buy, and needed the things we had to sell."

An air conditioning equipment demonstrator declared: "We've booked more orders for our line than in any comparable recent period."

The list of exhibitors included such names as: General Electric Supply; Jordon Refrigerator Co., Inc.; Potomac Electric Power Co.; Valmart, Washington, Inc.; Washington Gas Light Co.; and Washington Refrigeration Co.

But the actual list of refrigeration or air conditioning companies represented tells only part of the story. Almost every one of the booths was actually demonstrating one or more pieces of refrigerating or air conditioning equipment. The Valmart Co., for example, not only had its own exhibit, but supplied refrigerat-

ing apparatus for use in 10 others. Similar on-loan arrangements were made by G-E for a number of additional booths.

Host to the convention was the Washington Restaurant Association, and its president, Edward M. Warner.

Featuring the exposition were a number of panels which attempted to supply answers to some of the important questions facing restaurant operators.

One of these, an "Equipment and Food Research Clinic," was headed by Paul P. Logan, food and research director of the National Restaurant Association. Included on the committee were representatives from the Potomac Electric Power Co. and the Washington Gas Light Co., both utility companies but also handlers of refrigeration and air conditioning equipment.

Another panel, under the leadership of John Ebersole, White Plains, N. Y., former president of the NRA, covered "Everyday Management Problems." These included many references to refrigeration.

Two exhibitions which drew unusually large crowds were prepared by government agencies, but made use of borrowed refrigeration equipment.

'PLENTIFUL FOODS' DISPLAY

The Department of Agriculture passed out literature on the use of "plentiful foods" as part of its program to educate buying tastes of the public toward the eating of foods while they are in plentiful supply. The USDA booth featured a bulletin board showing two different balanced meals which could be prepared from plentiful foods and their cost per person based on restaurant cost-to-prepare prices.

Elsewhere in the booth was a list of the plentiful foods for December, and a large frozen food locker holding or flanked by the items shown on the list. The food locker was a

"Freshmaster" provided by the Valmart-Washington, Inc., company and its regional sales manager, Stanley Ringel.

The bulletin board featured a roast-turkey dinner with most of the trimmings which could be served at a food-cost of only 26 cents by the average restaurant, and a pork chop dinner complete with three vegetables for a food-cost of only 19 cents.

The second government exhibit was by the U. S. Fish and Wildlife Service, and used equipment supplied by Fred Peterson, regional sales manager of the Foster Refrigerator Corp., to show attractively-mounted specimens of most of the edible fish ordinarily served at restaurants. To draw even more floor-traffic into their booth, the exhibitors passed out shrimp cocktails which the receiver could eat while viewing the exhibit.

MANY LIVE MODELS USED

Live models were used widely throughout the exhibit to demonstrate the various pieces of equipment. Beautiful girls, most of them dressed in harem-type costumes, were another Valmart-Washington, Inc., contribution to the success of the show.

With a Carrier air conditioning outfit making them comfortable despite their filmy costumes they served free beverages from a 5-in-1 Freshmaster "Porta-Bar," and while the visitor was enjoying his drink, the models or Valmart salesmen would explain that the 5-in-1 could be placed anywhere, was perfectly refrigerated, always had one barrel of beer on tap and another in reserve, and could simultaneously dispense the beer, two favorite soft-drinks,

carbonated and plain water.

Another Valmart product on demonstration by the live models was a "Bar-ette," which the girls claimed would "draw at least 30 extra beers per keg." To the restaurant operators, however, the principal attraction seemed to be that it was completely refrigerated throughout, eliminating the old-fashioned ice-packing; and that it was a completely self-contained unit complete with beer, cola, ginger ale, carbonated and fresh water taps.

Valmart, Washington, is local distributor for all Freshmaster, Carrier, and Amana Refrigeration, Inc., equipment. Its own booth contained all three, while they had out on loan both Carrier and Freshmaster equipment.

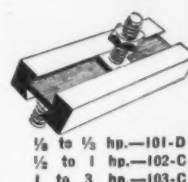
Carrier models shown included the ice-cube maker, the reach-in refrigerator, the walk-in refrigerator, beverage coolers, and "Humidry," all specifically designed or adaptable to restaurant and hotel use. One entire booth was devoted to the Carrier automatic ice-cube maker, to show hotel and restaurant owners how a single unit could deliver up to 400 lbs. of ice cubes per day.

The General Electric Supply Corp. booth featured the Model UC-5 under-counter refrigerator made by the Foster Refrigerator Corp. of Hudson, N. Y.; the Oasis electric water cooler, and air drier, made by Ebco Mfg. Co., and a General Electric packaged air conditioning unit.

In attendance at the booth part time with Peterson were R. J. Schweitzer and J. C. Brooks, two members of the G-E Supply sales staff, who were recently honored for being among the top five in a national selling contest sponsored by Oasis.

MR. PARTS JOBBER—

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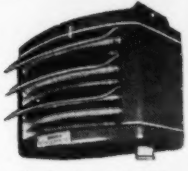
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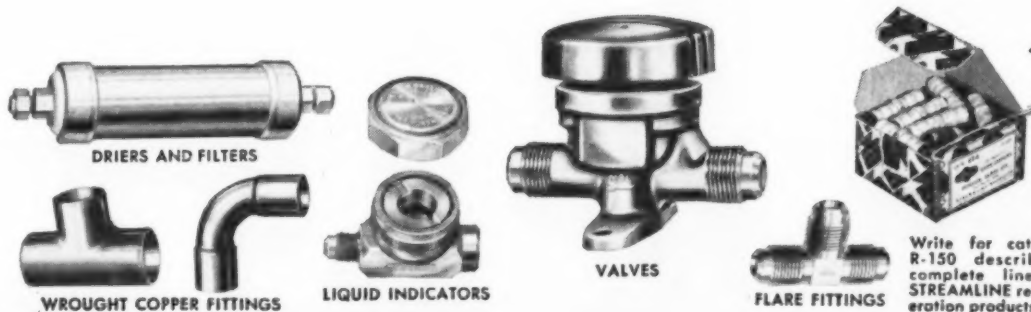
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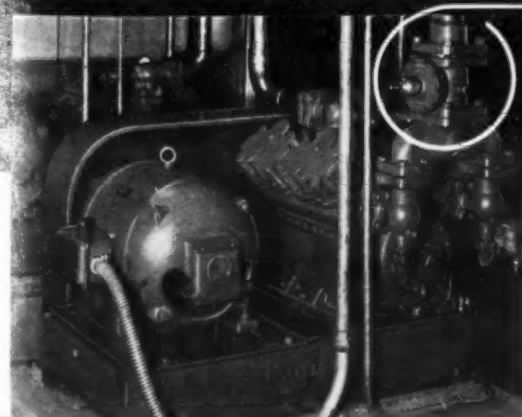
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EVANSVILLE, IND.

Frozen Foods Offer Hotels More Profit: Savings In Time, Labor, and Spoilage Could Cut Menu Costs for Food Serving Institutions

ATLANTA—How hotels, restaurants, and institutions can economically use bulk frozen foods was outlined before the commercial committee of the Southeastern Electric Exchange at that group's general sales conference here last fall by Don C. McCoy of Frigidaire's general sales department.

McCoy declared that food service operators had four major objections either real or imaginary, to the use of frozen foods, in addition to the number one objection, price.

These were resistance to new techniques, lack of adequate refrigeration facilities, improper preparation techniques, and poor quality.

EDUCATIONAL PROGRAM NEEDED

The only answer to those who don't like frozen foods because grandfather didn't use them, according to McCoy, "is an education campaign and practical use demonstrations directed at the individuals involved, which will convince them that frozen foods are practical, that they are equal or superior to fresh foods, and further sell the other advantages which they offer."

"To properly store frozen foods," McCoy continued, "it is necessary that refrigerated space be available capable of maintaining temperatures of 0° F. or below."

"Frozen foods can be held for a limited time in temperatures up to 15° F. But to retain the finest quality, temperatures of 0° F. or below are necessary, if they are to be held for an extended period of time."

"Above 0° F. deterioration of quality sets in with increasing rapidity as the temperature increases. The upper safe limit is 15° F. Research has indicated considerable evidence that above 15° F. may not be safe from a bacteriological standpoint."

STEADY TEMPERATURES IMPORTANT

McCoy emphasized that frozen food must not be subjected to wide variations in temperature.

"Fluctuating temperatures," he said, "may result in dehydration of food, with resultant loss in quality. Should the average temperature at which the food is maintained be 0° F., if temperatures fluctuate widely above this average, the storage life of the food will be shortened to that approaching the temperature of the high point of the cycle."

"The usual commercial tolerances of plus or minus 2° F. are entirely satisfactory."

McCoy noted that, in addition to the storage of frozen foods, there "are many uses of freezing on the premises which may be applied in the hotel, restaurant, and institutional field which can be of advantage to the operator."

EQUIPMENT MUST FIT USE

"The type of equipment required will vary with the size and type of the operation and the quantities of food which are frozen."

"It should be emphatically pointed out that when freezing operations are to be undertaken, the refrigeration system must be designed with this in mind."

"Freezing operations require considerably more refrigeration capacity than just holding food already frozen at the established storage temperature."

"One of the biggest valid objections to frozen foods can be traced back to lack of proper preparation techniques," McCoy told his audience.

"A great deal of excellent quality frozen food is completely ruined by improper preparation."

"For example, frozen vegetables are partially cooked in preparation for freezing. This process is called 'blanching' by the trade. Consequently when they are prepared for

serving to the consumer, they will not stand overcooking."

"Cooking techniques may need to be altered from that applied to fresh or canned foods to get best results with frozen foods."

"The opinion is too commonly held that frozen meat must be completely thawed before cooking. In most cases, this is wholly unnecessary—the meat can be cooked directly from the frozen state, the major difference being that longer time must be allowed to take care of the thawing, and lower cooking temperatures must be used, particularly with cuts having a large mass, so that they will not become overdone on the outside and still be raw on the inside."

"The use of thermometers or thermocouples is decidedly in order and will produce better results than the customary visual observations and timing methods."

"The meat thermometers will definitely tell when the end result desired such as rare, medium, or well done, has been reached at the center

of the mass of meat. Visual inspection alone and timing alone, or a combination of these two may be entirely faulty."

As for objection that frozen foods are of poor quality, McCoy strongly emphasized that freezing will not make good food out of sub-standard material.

FREEZING ARRESTS DETERIORATION

He explained: "Starting with a quality product, freezing arrests deterioration. It seals in the existing quality. It permits longer storage periods for future use, over-all quality of end product considered, than any other method of preservation."

He continued:

"Correct techniques for success with frozen food, and those responsible for the various steps are as follows:

"1. Selection of proper varieties and maturity—farmers and freezers.

"2. Proper processing and packaging before freezing—freezers."

"3. Correct storage after freezing—freezers, wholesalers, retailers."

"4. Correct transportation from point of freezing to point of distribution thence to the user—railroads, truckers, wholesalers, retailers."

"5. Correct storage prior to preparation for serving—user."

"6. Correct preparation and cooking—user."

"Frozen foods should be of interest to any food server. They spread supplies over longer periods of time and permit wider varieties on menus. They are economically sound, as they even cut prices over long cycles of time and reduce post-harvest gluts by syphoning off the excess supply for future use."

SHIPPING AND STORAGE SPACE CUT

"Frozen foods can show tremendous savings in shipping and storage space. For example, one carload of frozen spinach is equivalent to 11

carloads of fresh spinach as normally handled."

"A typical example of savings possible if the restaurant and hotel trade will demand it and sales volume justify it, is boning and trimming of meat and cutting it up into service size cuts, then freezing."

"Present practice is to supply it frozen or not frozen in the larger cuts, including all the bone and waste. The packer can profitably process and dispose of the bone and waste. He can assemble skilled processors and put the operation on an economical mass production basis. For the food server, this will eliminate labor and a waste disposal problem."

SMOOTHS OUT 'PEAKS AND VALLEYS'

McCoy said that frozen foods can be used in a food serving establishment to smooth out the use of labor, reducing peaks and valleys.

"For example, raw pies, baked goods and many pre-cooked foods can be prepared in off hours or on slack days. They are then frozen and stored for future use. The immediate requirements of pies can

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**Refrigeration
JOURNAL**

A "National Business" Publication

137 Wellington St. W., Toronto, Ont.



be baked off shortly before using. "Frozen rolls, etc., can be reheated for immediate use. Better products are secured compared to baking in mass and attempting to store the baked goods at higher temperatures which may result in stale-tasting products and much waste. The properly handled frozen product has a fresh taste.

"Preparation and freezing have been successfully used by Lyons of London to such an extent that today they are supplying over 3,000 customers with pre-cooked frozen foods throughout the British Isles, and are exporting frozen pre-cooked meals to all parts of the world.

"The use of frozen filleted fish will save much preparation time and labor in the kitchen. Those of us who live in the midwest invariably visit Bookbinders in Philadelphia, Fisherman's Wharf in San Francisco, and other famous seafood places when in the vicinity. By the use of quality frozen products, there is no reason why reputable and famous seafood businesses cannot be built away from the coast.

"Frozen orange juice and other fruit juice concentrates produce a

very desirable product with saving in storage space, less confusion, less labor, and less loss due to spoilage. The product has been proved to contain as much vitamin content as freshly-squeezed juice.

SMALL-SCALE FACTORY OPERATION

"A restaurant or other food serving operation is really a small-scale factory operation. No factory operation can succeed and make a profit without the use of proper tools and serious study of raw materials and the sequence of operations.

"In many manufacturing industries today, the investment in mechanical equipment runs from \$6,000 to \$12,000 per man employed. In many food serving establishments, it may be only a few hundred dollars.

FROZEN FOODS OFFER LABOR ECONOMIES

"In industry, time and methods study are continually in use to eliminate unnecessary labor and cut costs. While frozen foods are not mechanical devices, they are the result of mechanized techniques. They offer economies through saving in

labor, saving in preparation time, and simplifying operations to a point where they dare not be overlooked.

"I am indebted to Col. Paul P. Logan, director of research for the National Restaurant Association for the following figures. Out of \$1.00 food sales, safe operation today indicates approximately 42 cents for food cost; 28 cents for labor cost; 25 cents for overhead, allowing 5 cents for profit. The total of food cost and labor cost should run about 70 cents and not exceed 75 cents for safe operation.

"Perhaps a re-examination of food server's operations in light of these figures by trying to fit in frozen foods to save labor and other costs and maintain the balance of labor plus food between 70 to 75 cents will point the way to greater profits and fewer headaches," he concluded.

Midwest REWA Meets Jan. 22-23

KANSAS CITY, Mo.—A meeting of the Midwest REWA will be held at the Hotel President, here, Jan. 22 and 23. H. N. Haselwood, secretary-treasurer, announced recently.

Remington Corp. Elects Latimer as Treasurer; Moses Is Factory Engineer

AUBURN, N. Y. — Kenneth E. Latimer has been elected treasurer of Remington Corp., manufacturer of packaged air conditioning equipment, Herbert L. Laube, president, announced following the regular quarterly directors' meeting recently held here at the company's new plant.

Latimer, a native of Canada, joined Remington as chief accountant in 1947.

Appointment of John Moses as factory engineer, was also announced. Moses for the previous three years was a factory engineer specializing in room air conditioner manufacture with Carrier Corp.

From 1941, when he received his engineering degree at the University of Wisconsin, until joining Carrier, Moses was first a process engineer and then product development engineer with the Seeger Refrigerator Co.

Plea for Trade-Ins Opens Used Refrigerator Dept.

SYRACUSE, N. Y.—Lincoln's, 221 S. Salina St., launched a used refrigerator department with a special trade-in promotion in which large allowances were made toward the purchase of new refrigerators.

The event was launched with a full page newspaper advertisement in which the store announced: "Lincoln's wants 200 used refrigerators to start their new used refrigerator department."

Copy read: "Come in tomorrow and select your Crosley refrigerator without obligation. Our representative will immediately arrange to come to your home to appraise your old refrigerator. You will probably be surprised at the liberal allowance we can make you."

"Even if your refrigerator is not in working order be sure and see us for we have mechanics who can repair them. You can apply your trade-in toward the purchase of any Crosley model."

"If your present refrigerator is noisy and wastes a lot of electricity, or your family has outgrown your present refrigerator, here's an opportunity to do something about it."

Kilby Heads Sales for Associated Distributors

NEWARK, N. J.—Donald S. Kilby has been appointed vice president in charge of sales for Associated Distributors-New Jersey, Inc., distributor of Norge home appliances in the New Jersey territory, it was announced recently by Paul R. Krich, president.

Formerly appliance sales manager, New Jersey district, Frigidaire Sales Corp., Kilby had served the latter company for 15 years. For the past five years, he has worked closely with New Jersey major appliance dealers.

In his new capacity, Kilby will be responsible for the direction and execution of sales policies involving the New Jersey area distribution of the appliances manufactured by the Norge Div., Borg-Warner Corp.

Kilby succeeds Andrew K. Leach, vice president, deceased.

Bauchman-LaPrelle, Inc., Opens Offices In Dallas

DALLAS — Bauchman-LaPrelle, Inc., a newly established distributorship for five makes of appliances in North Texas, has opened offices at 2016 Richardson with J. B. Bauchman as president.

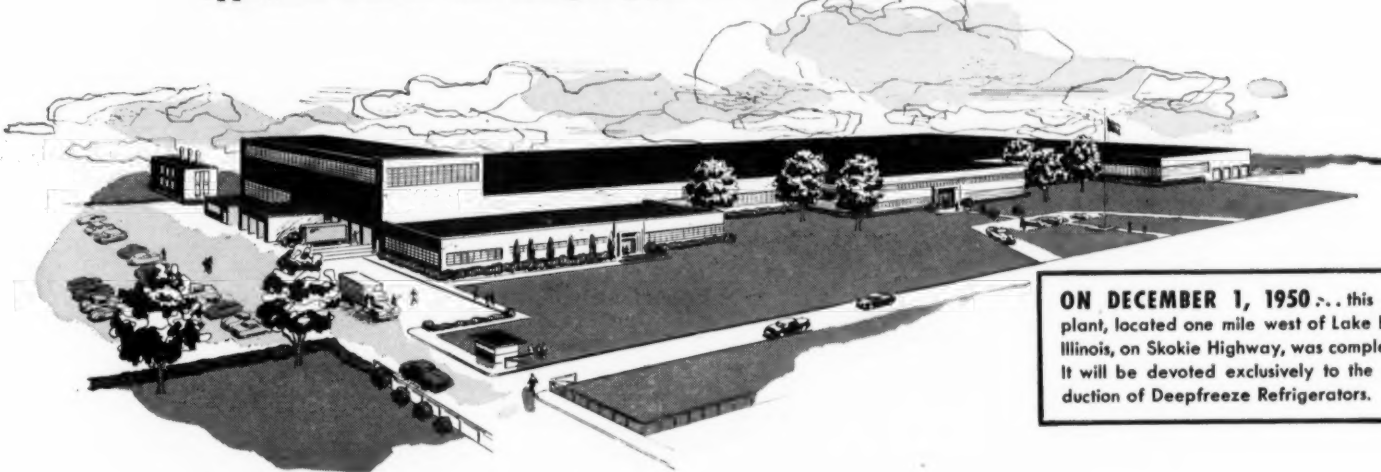
The firm will distribute Amana home freezers and refrigerators; Laundry Queen home laundry equipment; Supreme gas and electric ranges; and Jewel and Arvin radios.

A dealer organization to be composed of about 450 retailers is being set up under the direction of F. B. LaPrelle, general manager, and U. L. Murrell, sales manager.

Here's Why...

Public Demand Quadrupled!

Sales of Deepfreeze Appliances were four times greater last year than in 1949!
Every Deepfreeze Dealer can sell all the Deepfreeze Appliances he can get now . . . and next year he'll get even more! To meet its fast-growing demand Deepfreeze has expanded production facilities with a modern new plant. This means a new opportunity for more Deepfreeze Dealers to build their businesses with the fastest growing appliance line in the industry! Take advantage of this remarkable opportunity—P.D.Q.! Join the aggressive family of appliance dealers who are going places with Deepfreeze!



ON DECEMBER 1, 1950 . . . this new plant, located one mile west of Lake Bluff, Illinois, on Skokie Highway, was completed. It will be devoted exclusively to the production of Deepfreeze Refrigerators.

In '51—Go Buy the Name—

Deepfreeze

TRADE-MARK REG. U. S. PAT. OFF.

HOME FREEZERS • REFRIGERATORS • ELECTRIC RANGES • ELECTRIC WATER HEATERS
DEEPFREEZE APPLIANCE DIVISION, MOTOR PRODUCTS CORPORATION, NORTH CHICAGO, ILLINOIS

© 1951 Deepfreeze Appliance Division, Motor Products Corporation

See Your Distributor...P. D. Q. or Send Coupon for All the Facts!

for details about the greatest appliance franchise in 1951!

Your Deepfreeze Franchise gives you a head start for greater profits in 1951! Have your Deepfreeze Distributor explain it in detail . . . find out what Deepfreeze will do this year to help you sell. You can share in the great new Deepfreeze profits from the very start!

Deepfreeze Appliance Division
Motor Products Corporation, North Chicago, Illinois

Gentlemen: I'm interested in the best appliance franchise for 1951! Send me the complete story P.D.Q.

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Street _____

City _____ Zone _____ State _____

WALL WIRE PRODUCTS COMPANY

A FOREMOST NAME IN THE MANUFACTURE OF DIVERSIFIED WIRE PRODUCTS OF SUPERIOR QUALITY

STANDARD AND LIGHT WEIGHT SHELVES OF ELECTRO-POLISHED SOLID STAINLESS STEEL

REFRIGERATOR SHELVES WITH CHROME PLATE, ZINC PLATE, PRO SEAL, TIN, OR PORCELAIN FINISH

WIRE GRILLES • DISPLAY FIXTURES • GUARDS • BASKETS OF ALL TYPES FOR ALL PURPOSES
STEEL STAMPINGS • MISCELLANEOUS FORMED AND WELDED WIRE ASSEMBLIES
ARC WELDED ASSEMBLIES

WALL WIRE PRODUCTS CO.
PLYMOUTH, MICHIGAN

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
a reserve of trained scientists and engineers.

The Engineering Manpower Commission demands that this Reserve be created through registration (by selective service) of every man up to the age of 70 who has a bachelor's degree in Science—with a major in one of the critical fields of engineering—or who is enrolled in a program of training leading to a bachelor's or higher degree in one of these fields (or who has been employed in one of these fields in a technical capacity).

Additionally, the E.M.C. recommends the setting up of a National Engineering Personnel Board "whose duties shall be to review registrants, and to make selections with critical skills for military, civil defense, and industrial allocation. This Board shall advise the President as to critical needs, allocations, etc., and shall administer the reserve. Regional boards shall be appointed as directed."

A 20-member committee of representatives of the member societies of the Engineers Joint Council has been formed. The five founder engineering societies, including the American Society of Mechanical Engineers, American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, American Institute of Electrical Engineers,

American Institute of Chemical Engineers, and stray members of the American Society for Engineering Education compose this Joint Committee.

Critical fields "shall be defined by the National Engineering Personnel Board and may include supporting crafts essential to these fields."

Purpose of the registration was to locate all engineering skills so that they can be appraised and made available as needed by industry and the military. Registrants covered by Selective Service regulations or Reserve component rules will be reviewed for possible inclusion and earmarking as a reserve.

The basic purpose of this enterprise is "so to earmark specialized skills needed that a prestige will be accorded to its members that may offset the emotional desire of the young man to enlist rather than devote his efforts to the work for which he is best fitted." The reserve shall be constituted of registrants with special skills who have been selected by the National Engineering Personnel Board. The service or allocation of registrants in the reserve shall be under the direction of N.E.P.B.

The commission emphasized that a "fundamental and essential condition of any program of defense depends on realization that the survival of the United States as a free democracy in the world-wide struggle for control will depend on superior and prior scientific and engineering skills to offset superiority of members which the free nations lack."

Inequality of manpower numerically must be overcome by quality of manpower technically.

Superiority of morale is not sufficient. The military must be supplied

with and trained to use weapons always more powerful and more effective than the best the enemy can provide.

A second fundamental factor is the expectation that, by 1954, there will be a cumulative shortage of over 40,000 engineering graduates. Full-time operation of the engineering colleges may be advisable in order to shorten the educational period, without reducing the course content.

Postponement of induction of students whose records are satisfactory, as well as of the necessary faculty personnel, should be expected—and a publicity campaign in high schools should be undertaken to increase the enrollment in engineering courses.

Out of Our Mailbag

A "Leading Railroad" received the following letter from a disgruntled rider who lives near Amityville, Long Island:

"Gentlemen:

"I have been riding trains daily for the past two years and the service over your lines seems to be getting worse every day. I am getting tired of standing in the aisle all the time on a 35-mile trip. I think the transportation is worse than that enjoyed by the people two thousand years ago.

Yours truly,"

The following reply was mailed by the railroad:

"Dear Sir:

"We received your letter with reference to the short-comings of our service and believe that you are somewhat confused in your history. The only mode of transportation two

thousand years ago was by foot.

Yours truly,"

Reply from the original complainant:

"Gentlemen:

"I am in receipt of your letter and I think you are the one who is confused in your history. If you will refer to the Bible, Book of David, ninth chapter, you will find that Aaron rode into town on his ass. That, gentlemen, is something I have not been able to do on your trains for the past two years!!!"

Fogel Refrigerator Co.
Philadelphia, Pa.

Editor:

They say that one good way to reverse Dale Carnegie's recommendation is to start off with "I told you so." If 90% of the future prophecies were placed end to end—they would end in the waste basket. Can a young fellow like you look back seven long years to 1943 when a certain crystal ball gazer gave a talk before the St. Louis section of A.S.R.E. and certainly stuck his neck out to the extent of giving facts and figures as to when the war would end, what would happen immediately following the war in the refrigeration industry and when and how much equipment would be sold in a period from five to 10 years hence. That brings us to the period from 1948 to 1953, and right now is a good time to check this war-time prophet—whom some people, at that time, charged with giving out fantastic figures. Bob Price has recently sent me tear sheets of this article which was printed in the REFRIGERATION NEWS in two instalments (Dec. 6 and Dec. 20, 1943). I thought you might be interested with a comparison of the forecast then made with the actualities of today.

Please note that part shown in quotation marks are excerpts from the talk as given in 1943.

1—"Assuming that Germany will be licked sometime during 1944, we can then look forward to a period of about a year that will be devoted to subduing the Japs."

2—"We are faced with the possibility of a cooling off period of a couple of years. We can look forward to the real concentration on postwar operations to begin sometime in 1946."

3—"The following tabulation shows in one column the number of commercial refrigeration condensing units that were forecast for the years 1944 to 1948, inclusive, and the next column the number of condensing units actually produced during those years.

Year	Forecast	Actual
1944	150,000	189,578
1945	450,000	354,401
1946	600,000	755,538
1947	800,000	1,039,772
1948	1,000,000	1,041,609

4—"Beginning of 1949 we should begin to see the full effects of the new potentials to be opened in the commercial refrigeration industry as affected principally by the refinements in engineering developments and merchandising of several postwar products which offer volume that was not even considered possible in this industry several years ago."

"The years 1947, 1948, 1949 will probably be a period of stabilization—and result in a unit volume of approximately 800,000 (condensing units) in 1947 and approximately 1,000,000 in 1948 or 1949.

5—"The industrial development curve shown in that 1943 article indicated a 40% saturation in 1941 in the then existent and active commercial refrigeration market.

"New products will throw the saturation point to around 15 or 20%."

Figures now show that in the commercial fixture business there was 51,185 units sold in 1941 and in 1949 this increased to 105,228. Similarly the number of condensing units now shows at 451,000 in 1941 against an increase to 841,000 in 1949. These increases substantiate almost exactly, the prediction regarding saturation point.

6—"Among those which will enjoy a fast growth but which I believe will be but five lines in the industry, will be frozen food lockers, ice cream cabinets, and truck refrigeration."

"There is also new industrial equipment yet to be developed such as machines for instant ice—"

"Among the major products which should emerge in the postwar period, we will find vending machines for soft drinks, milk, fruit juices, ice

cream, frozen foods, and other foods and products."

7—"There are two products of greatest importance which will appear and each of them undoubtedly are for a volume far in excess of the maximum total prewar volume obtained in the industry—applications in air conditioning for room coolers—home and farm freezers and frozen food cabinets for use in stores."

8—"Prewar prospective list will be as out of date as the Republican Party in 1932."

9—"It was seven long years ago, back in 1943, that this article said, 'I predict—'

(1) "I predict—the channels of merchandising commercial refrigeration will be fundamentally the same as in the prewar years—"

(2) "I predict—that one of the new good big factors in merchandising commercial refrigeration equipment will be that man who has to date been a sleeping giant in the commercial sales field—the serviceman."

(3) "I predict—the formation of an organization of distributors and dealers throughout the country in a manner to that of R.S.E.S." (witness the commercial dealers association).

(4) "I predict—an era of package merchandising in commercial refrigeration to an extent not even approached in prewar years."

(5) "I predict—a new type of distributor—selling certain packaged type equipment on a merchandising basis rather than specially selling basis."

(6) "I predict—straight line volume production of room coolers and store coolers that will cut their previous cost almost in half and provide better, smaller, and lighter equipment."

(7) "I predict—new technique in the sale of refrigerated fixtures equip. to include complete renovations involving store fronts, etc."

(8) "I predict—market of from 100,000 refrigerated vending machines per year to 200,000 to be reached within the five to ten years of postwar operation." (this volume reached about 75,000 during 1948).

(9) "I predict—a new era in selling standards of the postwar period—an end to the exploitation of salesmen both for reasons of imposed regulations as well as good economic judgment."

(10) "I predict—a nationwide adoption of the complete processing, quick freezing, and packing of meats at the packing plants."

(11) "I predict—home freezers will emerge by far the biggest selling fixture product in the commercial refrigeration field—the volume of home and farm freezers and storage cabinets for stores—may run anywhere from one third of a million to 1,000,000 units a year."

(12) "I predict—a possible total potential in the commercial refrigeration business from a prewar maximum volume of 450,000 condensing units in 1941 to a postwar market—within 5 to 10 years after postwar gets going—of from one to two and a half million units." (the records show that in the seven years after this prediction, it has become a reality.)

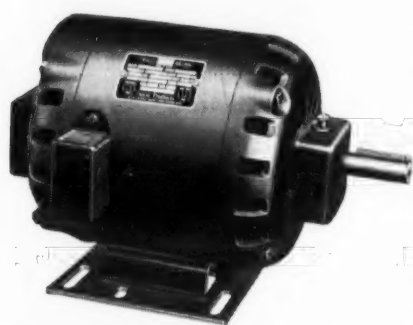
(13) "I predict—that in the postwar period it won't be possible for the condensing unit manufacturing to exist as a prime producer of commercial refrigerator machines if he maintains only the small volume of from 10 to 20,000 units as was the case of some in the period prior to Pearl Harbor. With a postwar volume of more than a million units per year, I predict the business will settle down to only eight or 10 manufacturers who have the ability to turn out volume at low cost and that the least of them will be producing 75,000 or more units per year."

(14) "I predict—the competition is going to be terrific. Just because of a huge potential won't give any one manufacturer a birth-right to a place in this postwar market. In this field of plenty, there will be more than one manufacturer of commercial refrigeration products who will 'miss the boat'—and a few other new ones who will take the place of leadership."

Seven long years ago they said I had by neck out when I gave this talk at the St. Louis A.S.R.E. meeting 1943. What do YOU think—in 1950? The records speak for themselves.

Kindest regards and best wishes for the season.

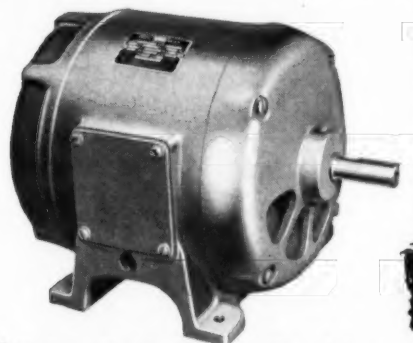
E. A. TERHUNE



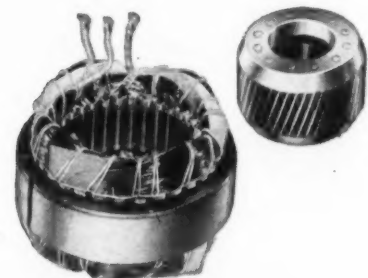
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LOCKER PLANT OPERATING COSTS They're Up, But New Studies Show How Income Can Be Boosted

CHICAGO—In case of war, the strategic value of locker plants with their widely decentralized processing and food storage facilities is highly important and cannot be overlooked, asserted J. E. Pidcock, manager of the Illinois Cooperative Locker Service at the company's recent annual meeting in Chicago.

Discussing further the locker plant's contributions to national welfare, he pointed out that they help provide a more healthful and better balanced diet for both rural and city patrons.

A tribute to the importance of home freezers was paid by Forrest C. Fairchild, manager of Prairie Farms Creameries, whose annual meeting, like that of the locker association, was held in connection with the 36th annual meeting of the Illinois Agricultural Association, sponsor of both these co-ops and others.

The farmer's capacity to consume dairy products has been substantially increased by use of home freezers, said Fairchild.

"The farmer is increasing the market for his dairy products by becoming one of his own best customers," he explained. "Keeping ice cream on hand in half-gallon and gallon lots is just one way the farmer makes use of the home freezer."

WHAT ARE THE PROBLEMS?

Pidcock in his report to the membership of the Illinois Cooperative Locker Service said the organization has 36 member associations, which operate 96 locker plants with 45,000 individual locker boxes. Among the

big problems facing the industry, he listed the growing competition from other food handlers; reduced consumer demand, compared to the immediate post-war peak; and mounting operating costs. Improvements in financial standing of member companies, over the past year, he said, have been accomplished largely through wholesale merchandising.

Present low volume, he asserted, will not produce sufficient income to cover operating costs of the facilities, so that locker plants that have facilities to handle large volume of slaughtering and merchandising must expand their present volume, he insisted.

Reviewing highlights of the year's operations by member companies, Pidcock said total operating costs have increased from \$18.52 per locker rented in 1944 to \$34.11 last year. Net savings on operations decreased from \$4.07 per locker rented in 1944 to 57 cents per locker rented last year. After payment of income taxes and interest cost, there was an average net loss of 55 cents per each locker rented for the past year, he stated.

HOW INCOME, COSTS COMPARE

Examining details of the financial report, Pidcock said total average gross income per locker was up \$1.57 over the previous year, average gross being \$34.68 per locker, as compared to \$33.11 for the previous year. Locker rental went up from \$12.95 to \$13.31, or an average of 36 cents per locker rented.

Processing income increased from \$14.30 in the previous year to \$15.53 last year, or an average of \$1.23 per locker rented.

Labor and management costs increased \$1.30 per locker to a total average of \$16.54 per locker rented. Five years ago, in 1944, he added, this labor and management cost averaged \$9.17 per locker. This year's labor and management cost accounted for 48% of all operating costs.

In an effort to develop new services that will increase volume of business during slack summer months and more fully utilize facilities and labor, the state association and member companies, said Pidcock, have had the assistance of the Federal Farm Credit Administration's

division of cooperative research and service.

THESE PROJECTS MAY HELP

One project conducted jointly, involved a poultry dressing and marketing service set up by the Macoupin Locker Service, to determine the possibilities for expanding similar services by other plants.

Personnel of the federal agency worked with the Macoupin management on problems of layout, arrangement, and operation of various makes of poultry dressing equipment, to determine the equipment most suitable for this type of operation and the best method for scalding, dressing, and handling high quality dressed poultry for market. After "know-how" and quality control have been well established, he announced, the marketing phase of the project will be undertaken.

At Marion, Ill., the Williamson County Co-operative Locker Service was also a guinea pig for development of a project to manufacture and market quality sausages. Under the brand name "Prairie Farms," used on other products made by other co-ops affiliated with the Illinois Agricultural Association, these sausages are receiving very favorable acceptance in the area of distribution, Pidcock reported, while this business has been helpful in realizing increased net earnings.

He also told of a cost analysis study research project which has been established at the Chapin Locker Service plant. It will, he said, cover costs of operating all major services provided by cooperative locker plants

and also techniques and methods of operation and devise improved methods and practices.

This study, Pidcock said, will show the importance of fixed charges in relation to operating costs; the importance of labor costs; and also develop information concerning the effect of fluctuating volume.

Such analysis, he said, should furnish management with data on costs of various operations and should serve as a guide in determining rates and charges.

As locker plants grow older, Pidcock said, deterioration of insulation and decreased efficiency in operation of machinery are noted, these being clearly indicated by continually increasing power costs year after year.

It thus becomes more and more important, he continued, that management learn more about the operation of refrigeration systems and keep a closer check on the condition of insulation and refrigeration machinery.

Folder Describes 'Leak Lock'

CLIFTON, N. J.—A new folder describing the properties of "Leak Lock" joint sealing compound has been released by Highside Chemicals Co., here.

This newly developed product is the first sealing compound specifically made for refrigeration use. The illustrations show how "Leak Lock" helps to prevent leaks of refrigerant gases at pipe threads, plugs, and gasket flanges.

This Contractor Pays His Salesmen 'According to What They Do'

ST. LOUIS—"I have no sales problems. I have not had any for 16 years."

That astonishing statement was made at the 37th annual convention of the National Warm Air Heating & Air Conditioning Association by Dan Schmidlin, Schmidlin Bros., Toledo, during a panel discussion on selling and salesmen's compensation at the dealer level.

Schmidlin then went on to explain his sales compensation plan: "I pay the salesman for what he does: \$5 for survey, \$2.50 for presentation, and \$2.50 for a demonstration, or a total of \$10."

"If a salesman does this 10 times he has made \$100. If he makes 10 good complete surveys, 10 good presentations, and 10 good demonstrations, he will sell heating equipment without any ifs, ands, or buts."

"Actually with this plan you pay only straight commission, for when the sale is made you deduct the money advanced and pay the salesman any balance due him."

The convention, held at Hotel Statler here, attracted a record attendance.

Officers of the association were re-elected for a second term. They are C. S. Franke, president of American Furnace Co., president; W. D. Redup, chairman of the board of Majestic Co., first vice president; C. B. Phillips, vice president of Surface Combustion Corp., second vice president; and George Boeddener, managing director and secretary-treasurer.

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				H	W	D
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260-DB	260	425	77.25	24 3/4"	20 3/8"	8"

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KOLD-HOLD SYMBOL OF SUPERIOR REFRIGERATION



Let **KOLD-HOLD** show you why "serpentine" design cuts your refrigeration costs

Take a good look at the cross section of a Serpentine Plate in my right hand for it holds the key to refrigeration savings for you. Notice that the channels through which the refrigerant flows are formed by joining a flat metal sheet to an embossed metal sheet. There is no internal tubing or piping so the refrigerant is in direct contact with the surface to provide the equivalent of 100% prime surface. The size of the refrigerant passage and the smooth contour of the return bend reduce pressure drop to the absolute minimum. Plates can't possibly become clogged or oil logged. So you see, the Serpentine design gives you more efficient refrigeration with less trouble and for less money. And the flat top surface of the Serpentine Plate is really handy. It adapts itself readily to the construction of shelves, stands and banks to add extra convenience to your holding and freezing rooms.

Why pay more for refrigeration when you get more efficient refrigeration by using Kold-Hold Plates with Serpentine design. Send for full details today.

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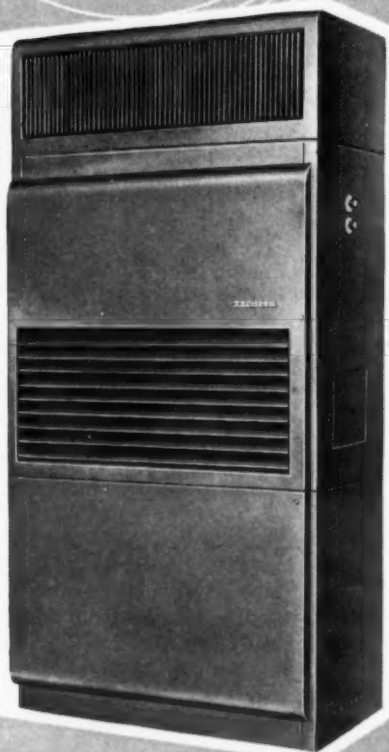
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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

Are We Up To What We're Into?

A FARMER in Iowa summarized the feelings of a lot of voters in the last election when he observed, with a fine economy of good, old-fashioned Anglo-Saxon words:

"I don't think those men in Washington are up to what they're into."

And we agree with Senator Taft that, although "isolationism" is a dead issue, it may be that as a nation we've bit off more than we can chew.

Furthermore, it isn't hard to see why people in other countries fear our "imperialism."

Senator Taft thinks that definite answers should be given to the following six questions before any more commitments are made by the United States to defend Western Europe, Asia, the Near East, etc.

- (1) How many American soldiers will be required and what will be the additional cost?
- (2) How much will it increase the necessity of drafting every American boy, as he becomes 18 years of age, for two years' service in the army?
- (3) Can Western Europe, etc., really be defended?
- (4) If the Russians have atomic bombs with which they can bomb the cities in this country, can they also bomb the embarkation points in Europe and cut off our troops there from American supplies?
- (5) What will a third world war be like?
- (6) How can we win it, and what will it take?

Ten years ago the eminent historian, Charles A. Beard, warned:

"The further away from its base on the American continent the government of the United States seeks to exert power over the affairs and relations of other countries, the weaker its (United States) efficiency becomes.

"And the further it (United States) oversteps the limits of its strength, the more likely it is to lead this nation into disaster—a terrible defeat in a war in Europe or Asia beyond the conquering power of its soldiers, sailors, and airmen.

"If the wrecks of overtaxed empires scattered through the centuries offer any instruction to the living present, it is that a quest for absolute power not only corrupts. It in time also destroys."

Russia, obviously, is out for absolute power. All of us agree that we must stop her. But, in the process, is it necessary that we acquire absolute power over the rest of the world? Wouldn't that make us almost as bad as the Russians?

To a lot of people, it appears—wrongly, we trust—that absolute power is the goal of our State Dept. and the Administration's foreign policy. Especially is that feeling held abroad.

Supposing we are "up to what we're into" (a highly debatable proposition). In the light of what post-war obligations have cost us the last two times, can we afford to run the world all by ourselves? And is that what we really want to do?

What Refrigeration Does for Candies

Lower Temperatures Lengthen Shelf Life, Maintain Color, Taste, Texture, and Combat Insect Infestation

NEW YORK CITY—Refrigerated storage of candies, even at temperatures which once were thought harmful, lengthens their shelf life and makes the product much more saleable, it was brought out in a report by J. G. Woodroof of the Georgia Experiment Station "What Refrigeration Does for Candies" based on studies by Woodroof and Helen H. Thompson and presented to the ASRE meeting here.

The study was made on packaged candies, and it demonstrated that shelf life can be extended five to eight times if the packaged candy is held at the proper low temperatures.

Experience has shown that "the finest candy in the world can be absolutely ruined through improper storage," Woodroof said, pointing out that high temperatures affect candies adversely in four principal ways: color, taste, texture, and insect infestation.

COOLING NOT CAUSE OF 'GRAYING'

"Graying of chocolates" often wrongly associated with refrigerated storage, comes from high temperatures (such as exposure to sunlight). Experiments showed that chilling chocolates to 68, 50, 34, or as low as 0° F. for as long as six months did not result in graying, but exposing them to warm sunshine or the equivalent temperature for as little as one hour caused severe graying.

In the tests made at Georgia Experiment Station 18 types of candies were stored in closed glass jars at 86, 68, 50, 35, and 0° F. for periods from six to 10 months. Since the jars were filled there was no change in moisture content during storage and thus the differences in quality observed can be attributed entirely to differences in temperatures.

Results of storage at 0° showed that except for candies containing fatty materials most packaged candies can be held at freezing temperatures for at least six months without deterioration. On removal

from storage, the temperature should be permitted to rise gradually over a period of at least 24 hours.

The quality of candies stored at 32° F. was much the same as when stored at 0° for four to 10 months. Only those candies containing peanuts, chocolate, or other oily materials became slightly stale, with all others remaining completely fresh. Removal of candies from storage at this temperature should be successively through warmer rooms during a period of 24 hours, to avoid condensation of moisture.

MOST CANDIES HOLD UP AT 50° F.

At 50° F. most candies remained firm, and of good texture and color, with only those containing nuts, butter, cream or other fats becoming stale or rancid within four months. Candy varieties which became stale at 50° F. were peanut butter taffy kisses, peanut brittle, uncovered peanut rolls, chocolate covered peanut rolls, and nougat bars. Woodroof said the tests indicated that 50° F. would be a good temperature for transporting candies or for temporary stockpiling, but not for prolonged storage, since there was a detectable loss in flavor in four months with most of the candies tested.

At 68° F. only hard candies or other types containing sugar ingredients kept in good condition for more than six months. All other types became stale, lost original flavor and luster, and most of them became darker in color. Candies with nuts or chocolate became musty or rancid in prolonged storage and color and flavor, even of some hard candies, deteriorated.

Air conditioning of candy plants to hold temperatures not higher than 68° F. were recommended by Woodroof to keep soft pieces of candy from being packaged, and to keep candies firm and prevent graying. He also urged that candies be transported at temperatures not higher than 68° F. and stored at temperatures at least that low, and possibly lower.

In tests with candies stored at 86°

F., practically all of the samples lost quality on all scores, beginning the first day and increasing with the storage period.

The studies also showed that temperatures below 50° F. prevent insect infestation, which becomes active at about 50° F. and increases as the temperature is raised to 100° F. While normal refrigeration does not kill them, insects are inactivated at temperatures below 50° F. to where damage ceases.

When infested materials are stored at or near 0° F. there is actual killing of both adults and eggs; thus, the lower the temperature and the longer the storage period, the more lethal are the effects on the insects.

COOLING RETARDS STICKINESS

Woodroof said that candies at low temperatures will have a wider range of critical humidities than when stored at high humidities. Nougat bars stored at 65% relative humidity become sticky within a few days at room temperature, but at 40° F. or lower, they probably wouldn't become affected with stickiness for several weeks.

Marshmallows at 55% relative humidity and room temperature get dry and crust in a few days, but at 40° F. temperature would keep fresh for several weeks. Thus, refrigeration retards, or delays, the ill-effect

of storing under improper humidity conditions.

Since sugar ingredients predominate in candy formulas and are water soluble, an increase in moisture content of only 2% can result in considerable deterioration of many candies, Woodroof pointed out. To maintain as nearly as possible the original moisture content, it is necessary to maintain proper humidities.

Sugar ingredients are stable to a wide range of storage temperatures, but are sensitive to either too high or low humidity. The initial moisture content of candies determines the proper relative humidity in the storage atmosphere.

Candies with moisture content of 12 to 16%—marshmallows, gum drops, coconut sacks, jelly beans, and fudge—should be stored at 60 to 65% r.h. Types with moisture content of 5 to 9%, such as fine candies, nougat bars, nut bars, hard and soft creams, and caramels—should be held at 50 to 55% r.h. Candies with moisture content below 2%—milk chocolate bars, chocolate covered nuts, and all kinds of hard candies—should be held at 45% r.h. or lower.

Koyle Is Tenney's Florida Agent

NEWARK, N. J.—Tenney Engineering, Inc., here and Baltimore, Md., has announced the appointment of E. G. Koyle as representative in its Florida territory.

Prior to joining Tenney, Koyle represented Acme Industries, Inc., for a period of three years. He has also been representative for Stewart Mfg. Co., and Inflico, Inc., Chicago, manufacturers of equipment for water treatment and conditioning.

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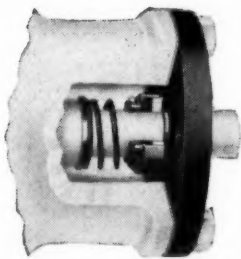
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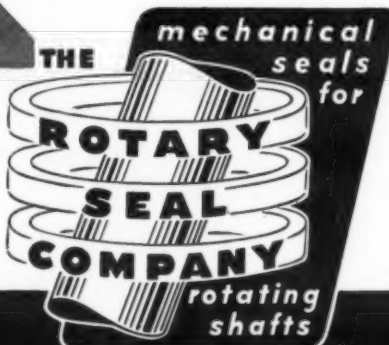
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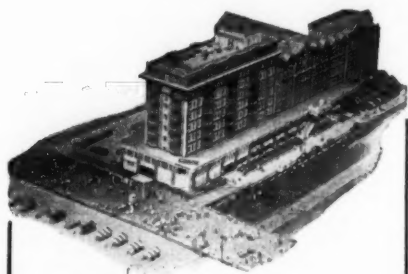
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Atomic Plants Need Close Air Control

Air Conditioning Systems with Automatic Controls Prove Key To Minimizing Hazards of Processing

MILWAUKEE — How automatic temperature, humidity, static pressure, and air velocity controls are used to minimize the hazards in atomic energy plants was explained recently by J. A. Cutler, president of Johnson Service Co., here.

The Johnson organization, whose control systems are used extensively in atomic energy plants throughout the country, was recently awarded contracts to make and install special automatic control systems for the fume hoods in Argonne National Laboratory near Chicago and Hanford Engineer Works, Richland, Wash.

According to Cutler, there are currently three broad areas of application of automatic control apparatus in atomic energy plants.

As an initial consideration, he said, plants where radioactive materials are handled almost always are equipped with complete air conditioning systems. Automatic temperature control apparatus is called upon to solve the same problems encountered in any first-class industrial building.

Consequently, many thousands of standard regulators have been installed in these plants by Johnson engineers for operation in the usual manner. However, many special considerations arise because of the hazards of atomic energy work.

For instance, a second type of control application is specifically related to the presence of radioactive materials, Cutler said. In most plants dealing with radioactive materials, this involves the precise control of the movement of air within each building to keep contamination at a minimum.

A typical building may have several zones of activity, each varying in its degree of exposure to radioactive materials, Cutler pointed out.

General office areas, receiving and shipping rooms, and maintenance areas are termed "safe" and may be

Will All Industrial Plants Need Air Conditioning To Survive?

PITTSBURGH—Judging from a recent talk by Dr. Thomas L. Shipman of the Los Alamos scientific laboratory, air conditioning is going to be a "must" for atomic age industrial plants.

Dr. Shipman told the Industrial Hygiene Foundation that future industrial buildings, to withstand an atomic bomb blast, should be designed to resemble a concrete box with a minimum of doors and windows.

Better housekeeping methods must be devised to keep combustible materials to a minimum, he said.

When industry gets to use radioactive materials, he declared, the areas in which they are employed will demand a type of cleanliness comparable to an operating room and elaborate precautions to protect the health of the workmen.

said to comprise "Zone 1."

"Zone 2" includes less safe areas where some process work involving radioactive materials is done. "Zone 3," called a "hot" zone, includes all other areas of the building.

In most cases, he revealed, the buildings are air conditioned for year-round service. Air for heating or cooling is supplied to each zone separately, with thermostats and automatically controlled valves and dampers provided to maintain the building at the desired temperature.

Unlike the problems of controlling air conditioning systems, however, it is necessary, with radioactivity present, to insure that the air always flows from a safe zone to a less safe zone.

The various zones are isolated from each other by walls, with traffic between zones having to pass through air locks.

As an added safeguard, Cutler said, each zone is equipped with a comprehensive system of static pressure control. Zone 1 is maintained at the highest pressure, Zone 2 at the next highest pressure, and Zone 3 at the lowest pressure.

Since there is always some leakage through the walls between zones, and also the possibility of someone leaving an air lock open, the static pressure control arrangement insures that any air flow will be from a safe to a less safe zone. Safety devices sound an alarm if air flows in the wrong direction.

Cutler also explained that much of the space within a building handling radioactive materials may consist of hot-zone laboratories in which special fume hoods are installed for the treatment of materials.

The use of these fume hoods, which are connected to exhaust ducts to provide a positive air movement to remove radioactive fumes and other toxic gases, has resulted in the development of the third and newest application of automatic control apparatus in atomic energy plants.

For safety, the velocity of the air through the hood door should be at least 125 f.p.m., he said. However, if this velocity is above about 175 f.p.m., some radioactive particles undergoing processing are carried away.

It is necessary, therefore, to control the velocity of air through the hood door between these limits. This problem is made more difficult because the hood door may be anywhere from wide open to almost completely closed and because of available resistance in the system when filters become dirty.

Recognizing the problem when fume hoods of this type were first proposed two years ago, Johnson engineers built a test installation, consisting of an exhaust system and two typical hoods, in its research laboratory. Exhaustive tests were conducted to develop a workable control arrangement.

Several means of detecting changes of velocity were tried, including vanes, hot wires, and pressure differences. The vane system was found to be unstable, while the hot wire method was influenced by air temperature as well as velocity. It has the further disadvantage of being unable to differentiate as to the direction of air flow, Cutler said.

The pressure-difference method of velocity control, which finally was adopted at Argonne and Hanford as a result of the Johnson tests, depends for its operation on the fact that the velocity of air, moving between two points, is proportional to the difference in pressure between these points.

In the case of air moving at a velocity of 130 f.p.m., this pressure difference is .001 in. water gauge.

To control the velocity at 130 f.p.m., within plus or minus 10 f.p.m., the control instrument must respond to infinitesimal pressure variation of .0001 in. water gauge.

The successful regulation of con-

tamination in atomic energy plants by means of these automatic control installations is an economy measure as well as a health measure, according to Cutler, since expensive laboratory apparatus and equipment must be replaced if they become radioactive.

Plastic Water Pipe Used In Jet Wells for Homes

CLEVELAND — Carlon Products Corp. reports that "Carlon" plastic pipe is being utilized in the 600-home La Grange Highland Housing Project, 15 miles west of Chicago.

The plastic pipe is being used for the jet well installation for each housing unit. Engineers of Wenz Brothers, Lyon, Ill., who are handling the well digging and jet well installation in this project, estimate the average well depth at 150 ft. In each case, the well is located adjacent to the garage foundation, and the pump and its accessories are installed in the garage which is attached to the house.

Carlon "EF" pipe was chosen for use in this housing project because it is guaranteed against rot, rust, and electrolytic corrosion. Extruded from plastics compounds which will not contaminate the drinking water systems, Carlon pipe features a smooth internal surface which minimizes frictional loss and will not accumulate scale. Because it weighs only one ninth as much as steel pipe of comparable capacity, the plastic pipe can be installed easily and without the use of special materials handling equipment or tools. It is furnished in long lengths and can be made-up rapidly.

Extruded from polyethylene, flexible Carlon "EF" used for the two jet lines is available in lengths up to 400 ft. (depending upon diameter). It is coupled to the jet unit and then fed manually into the well, regardless of depth. In the La Grange installation, the only fittings necessary are the threaded adapters that connect Carlon "EF" to standard pump and plumbing fittings.

Solder Flux Reactivated With Water from Tap

WHITE PLAINS, N. Y.—All-State Welding Alloys Co., Inc. here, announced that it is now marketing "a vastly improved aluminum solder flux that can be reactivated after drying out by the simple addition of tap water."

The company said the flux can be used with aluminum solder rods of any commercially available brand, with an open flame, and, under certain conditions, with a soldering iron.

The flux is characterized "by such thorough and universal tinning action that it enables soldering aluminum to other metals, e.g. copper, steel, bronze, etc.," it is claimed. "This flux both cleans the surface to be soldered and deposits a coating of a nature permitting the aluminum solder to flow and adhere."

The new flux stems from the discovery by All-State chemists of a new chemical combination permitting the use of water as the solvent in place of alcohol.

It will be known as No. 39 Brazaloy Flux, and is available in drums, cans, and jars.



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'Slave Driving' Dealer Protects Salesmen**Making at Least 10 Calls Per Day Assures Outside Men Respectable Income**

LAPORTE, Ind.—Requiring that every outside salesman make a minimum of 10 calls per day, and checking closely to see that he has done just that, has led to unusually harmonious personnel relationships at Square Deal Electric Co., Frigidaire dealership here.

Walter Hahn, manager of the store, believes that "salesmen are only human" and are inclined to become discouraged after a few unsuccessful calls, or to "lay down on the job" after they have made unspectacularly good sales. Therefore, to make certain that each of his men earns a respectable income, he sees to it that each makes at least 10 prospect calls per day.

"On the law of averages alone, and carrying a complete appliance line, we are bound to get some results," Hahn pointed out. "Our salesmen are some of the best paid in this section of the country, and it did not take them long to realize it."

Along with the 10 calls per day plan, Square Deal Electric Co. likewise insists that every prospect is called upon at least once every 30 days, if unsold during the original prospecting call.

To likewise make sure that these calls are made, Hahn has set up a "master file" in which he maintains a duplicate of every prospect card which is being carried by the salesmen. Each has a serial number, and

is removed at the end of each month, to see whether salesmen have made a repeat call, and transcribed the notes on the call in the master file. If not, the salesman is likely to "lose the prospect" to another salesman—therefore, each man is fully assiduous in attempting to keep up with his quota.

"In return for this slave-driving, we protect each man thoroughly," Hahn smiled, "which means that the salesman who made an original contact is paid a full commission on the sale of the appliance, even if the customer comes into the store, and buys it from someone else. The men all appreciate this, are extremely fair and square with each other, and

thus there are no arguments, no split commissions, and no friction of any other type to deal with."

To celebrate its 25th anniversary in the appliance field, Square Deal "leased a radio station" recently, and broadcast an entire day of radio quiz shows, phonograph records, stunt promotion, etc., over the air. The show, which literally swamped the LaPorte area, brought more than 2,500 women around to visit, and brought in a record volume of sales as well. While this was reasonably expensive, the 15% increase in store traffic, and a 10% increase in sales for the next three months, made it more than worthwhile, Hahn believes.

Hardware House Gives Appliances Top Billing

ERIE, Pa.—Appliances have been given an important up-front display section in the newly opened branch store of The Palace Hardware House in the West Erie Plaza.

This store has approximately 8,000 sq. ft. of floor space and is one of the largest hardware outlets in northwestern Pennsylvania.

All along the front and sides of the store major appliances get choice billing. For instance, 20 ft. of space along both the left and right walls are given over to them. And in addition, a center display—between the twin double-door entrances—features household appliances.

Traffic appliances are arrayed further back along one wall.

Front of the store is 46 ft. wide. A stock room on the right side of the sales floor provides storage area.

The front of the store is designed in such a manner that street traffic gets an excellent view of appliance displays on the interior, for the two double-door entrances are positioned on each side of a center window.

Wall fixtures are interchangeable so that appliances may be shifted to achieve a new display effect.

Under canopies overhanging the wall displays is continuous-strip neon lighting. A 6-in. light gap under the canopy permits the light to reflect up as well as down. The ceiling lighting is "Slimline" wired in such a way that each strip can be made to glow steadily or "flash," as the need may be.

Anything Traded On For 'Sadie Hawkins Days' Promotion Stunt

PITTSFORD, N. Y.—To put some zip into the appliance and television business, Meacham's here conducted a "Sadie Hawkins Days" promotion during which the store's management promised: "We'll trade on anything."

The event was launched with full page advertising in a Rochester paper built around the theme: "Man Bites Dog. But Here's Real Honest To Goodness News." The advertisement carried a cartoon of a man biting a dog's leg.

"Anyone can catch a bargain during Sadie Hawkins Days," said advertising copy. "We'll trade on anything. Turn in your old appliance, radio, phonograph, horse, cow, pig, goat, small size television, bike, car, clock, gun, etc., etc. At least a buck for your old Hoover button."

Electric Range Sales Hit 18,206 In Philadelphia

PHILADELPHIA — A total of 18,206 electric ranges were sold in metropolitan Philadelphia during the first nine months of 1950, the Electric Association of Philadelphia announced recently.

The association said these units had a total value of \$4,444,723, or an average unit price of \$243. The sales report covered 16 brands of ranges and the five counties of Philadelphia, Montgomery, Bucks, Chester, and Delaware.

Sales increased gradually from a low of 1,183 in January through the first four months, dipped slightly in May and June, then hit their peak in July and August. August was high month with 2,919 units sold. September sales fell somewhat short of this figure.

The month-by-month breakdown is as follows:

Month	Units Sold	Dollar Retail Value	Average Retail Price
January	1,183	\$301,072	\$254
February	1,250	297,695	238
March	1,713	432,896	252
April	2,098	543,172	268
May	2,078	533,278	264
June	1,983	458,021	231
July	2,674	668,972	250
August	2,919	659,517	228
September	2,308	550,100	238
Total	18,206	\$4,444,723	\$243

NLRB Dismisses Union Petition To Include Confidential Secretaries In Bargaining Units

WASHINGTON, D. C.—In two cases involving Federation of Westinghouse Independent Salaried Unions, the National Labor Relations Board recently received an intermediate report from trial examiner recommending that the Westinghouse Electric Supply Co. in Pittsburgh bargain with the union and dismissed a union petition to include confidential secretaries of the Westinghouse Electric Corp. plant at Hyde Park, Mass., in one of its bargaining units.

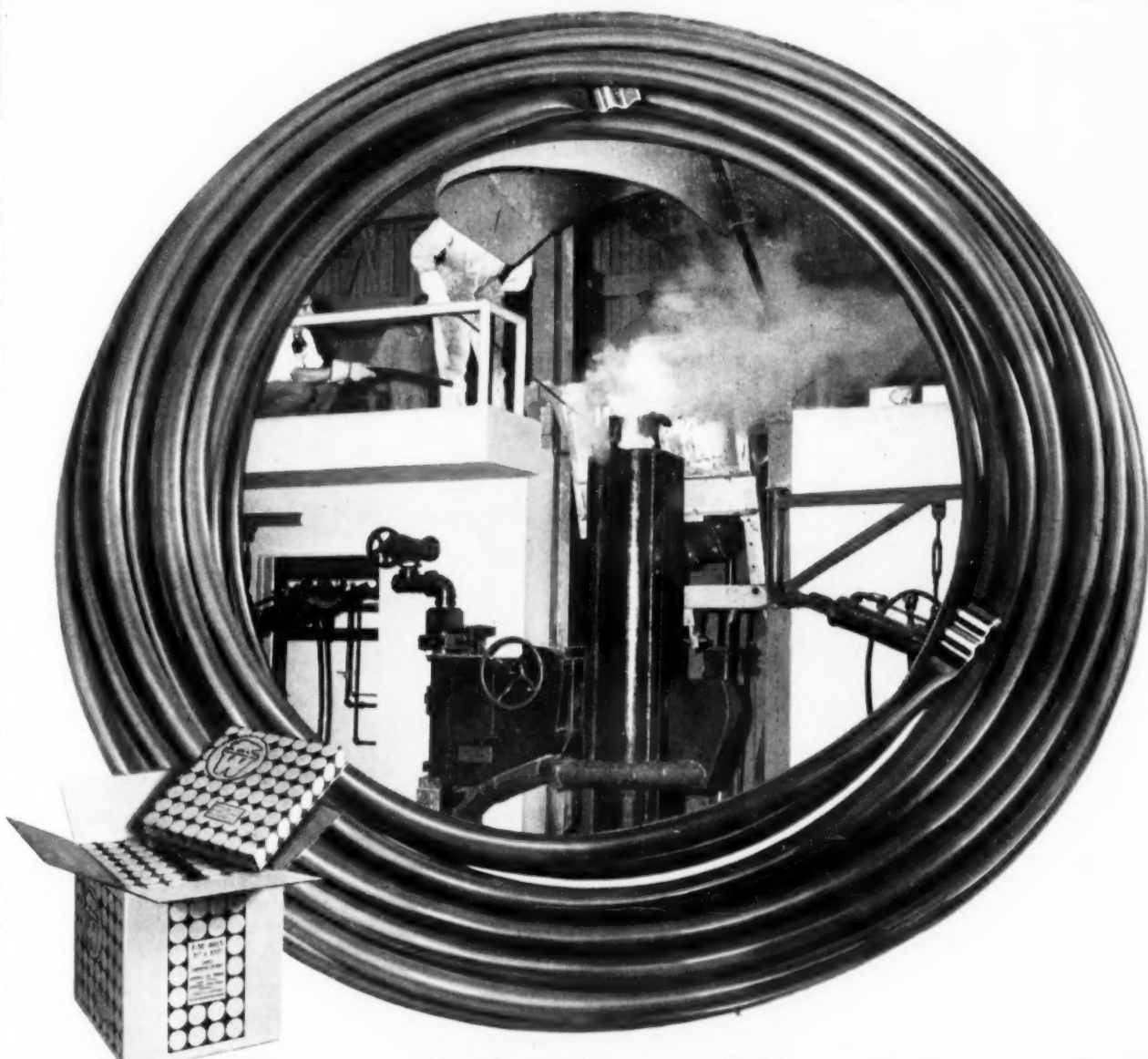
In Pittsburgh, trial examiner William F. Scharnikow recommended

that the local distributor bargain collectively with the union upon request concerning wages, hours, etc.

In Hyde Park, the NLRB found that a unit composed of salaried plant clericals and secretaries classified as Stenographer A is inappropriate.

The board found that the company's contract with IAM covers the plant clericals requested and is a bar to an election at this time.

Secretaries classified as Stenographer A, the board said, are confidential employees and should not be included in any bargaining unit.



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The ultimate tube will be easy to bend, flare and thread.

Yes—controlled casting is important. Because the constituents are so perfectly blended and the operation so skillfully done, you can be sure of delivering the utmost in customer satisfaction when you sell Wolverine tube. WOLVERINE TUBE DIVISION, Calumet & Hecla Consolidated Copper Co., Incorporated, Manufacturers of Seamless, Non-Ferrous Tubing, 1413 CENTRAL AVENUE, DETROIT 9, MICHIGAN.

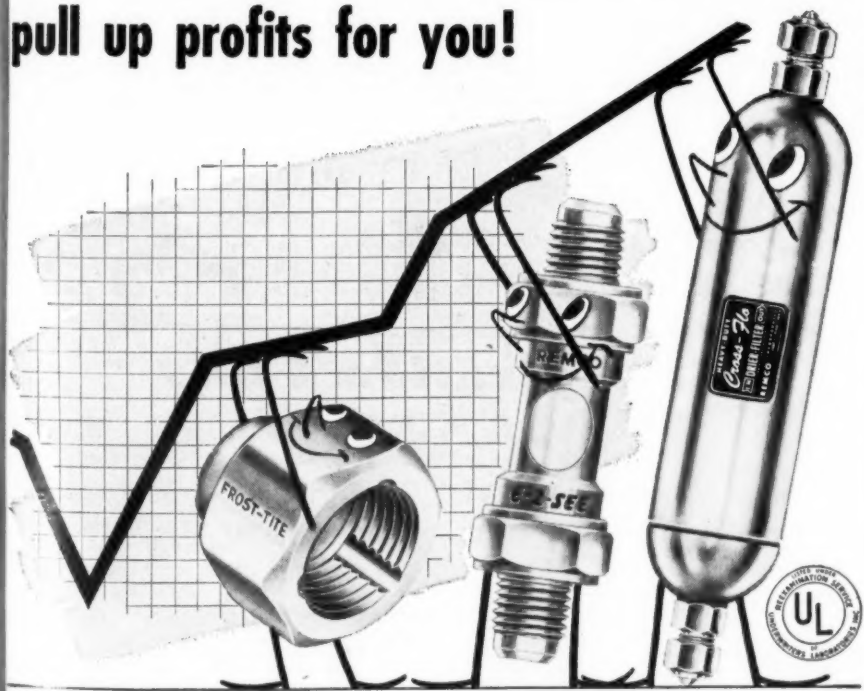
Plants at Detroit, Mich. and Decatur, Ala.

Wolverine Mill Depots:

DETROIT, MICH. • DECATUR, ALA. • HOUSTON, TEXAS • LOS ANGELES, CALIF. • LONG ISLAND CITY, N. Y. • PHILADELPHIA, PA. • PROVIDENCE, R. I. • ST. LOUIS, MO.

Sales Offices in Principal Cities

Let the **REMCO** "loss eliminators" pull up profits for you!



FROST-TITE eliminates losses from loosened and cracked flare nuts —

In Frost-Tite flare nuts, forged frost-relief slots provide relief for expanding ice within the nut, and thus no force is created to cause loosening, splitting, or cracking. Cost no more than ordinary flare nuts—are ideal for use anywhere in the system.

E-Z-SEE eliminates losses from leaking liquid indicators —

With E-Z-See, you are assured of the following definite advantages: (1) E-Z to see thru—both sides of the body are open to let in light (2) Positively leakproof—can't leak because springs automatically maintain just the right force to form a positive seal around the glass (3) Perfectly Safe—glass is protected for safety at pressures up to 500 psi.

Cross-Flo eliminates losses from clogged driers and expansion valve freeze-ups —

In Remco's new heavy-duty Cross-Flo Drier-Filter, you get the highest-possible efficiency even at liquid temperatures up to 150°. You can now count on prevention of refrigerant control freeze-ups even in the lowest temperature installations.

Be sure to specify REMCO "Standard-Duty" Driers as the ideal low-cost quality driers for field applications and original equipment. Available with Molded Du-Cal Drierite or Silica Gel.

Send for Literature and Prices



CARRIED IN STOCK BY LEADING WHOLESALEERS EVERYWHERE
West Coast warehouse stock at: 2103 So. San Pedro, Los Angeles, Calif.
EXPORT DEPARTMENTS: Melchior, Armstrong, Dessau—Ridgefield, N. J.

No Flat Contract Prices for Him!

Philadelphia Dealer Sells Refrigeration Service Contracts to Apartment Houses But Charges on Per-Hour-Plus-Parts Basis

WASHINGTON, D. C. — Selling contracts without a flat contract price for the servicing of apartment house refrigerators comprises a major part of the thriving refrigeration service business of the Williamson and Davis Co. here.

The firm, which also conducts a lucrative water cooler rental service and domestic refrigerator repair service, contracts with apartment house owners to check on every refrigerator in the building once every six months. But it charges on an hourly basis plus cost of parts.

"We feel that if we give an apartment house a flat contract price, we may be either overcharging or undercharging," says Harry Williamson, partner.

"It is very hard to give a flat price either for service or labor and expect to give your customers complete satisfaction or to make a profit yourself.

"Too many service dealers seem to feel that everything averages out. We have found this to be incorrect. In addition it is a haphazard way of making a profit on service, labor, or both. We, therefore, charge by the hour and for parts."

The firm charges \$3.50 for the first half hour of service and \$4.00 for each succeeding half hour. For every 15 minutes over the time period the charge is for a full half hour.

If the apartment house superintendent wants all the work done at once, a force of up to 25 men is placed on the project. If there is no time limit, the firm may place only a few men on the job and split their time between the apartment and the shop. In this way, the full force of men is kept busy the year-round.

"At first," said Williamson, "we solicited apartment houses for refrigeration work. Then one superintendent told another about our service and others began to call us. We took on as many as we felt would stabilize our organization so that we could retain a certain number of men on a 12-months basis."

MAINTAINS CHECK-UP SCHEDULE

The servicing done on apartment house refrigerators covers oiling, cleaning, and checking. By checking them every six months the refrigerators are kept in good enough condition just to warrant this service. Some may need some replacement parts occasionally. Few are ever in such condition as to warrant their removal from the apartment houses.

The firm has tried to make each man employed a specialist in some phase of the business operations. Five men are constantly employed in the shop. One is a paint and pump spe-

cialist, another is a expert on motor work, and the rest can do general overhauling and repair work.

When jobs come in, the man best suited to handle the particular trouble is given the refrigerator. Refrigerators are brought in by the customers with only an occasional one coming from a serviceman.

"The bulk of our shop work comes from rural and nearby suburban areas," said Williamson. "These people load their refrigerators on their trucks or put them in their cars and bring them to our shop. We draw business from a very large rural area."

"These folks are inclined to call us to determine the extent of their repairs and the probable cost. They know that bringing the unit to us reduces the charges very greatly from what a refrigeration man would charge to come to their distant homes. So they bring them in to us."

Usually the telephone estimate is close to the final charges, Williamson said. The customer is told when he can expect to have the refrigerator back and it is ready at that time.

HOME MECHANICS WELCOME

Many of the firm's customers come in only to buy parts. They feel that they can fix their own refrigerators. This is true when the box needs belts, bolts, hardware, and a few other items, but not where actual repairs to the system are concerned.

"In the past year we have sold over 3,500 service manuals to handy refrigerator owners," related Williamson. "Some have come in to discuss their refrigerators. We have been able to get to the source of the trouble by thumbing through this manual with them. They would then buy the manual, the parts, and try their hand at repairing."

The firm has never lost any business due to the sale of parts and manuals to their customers, Williamson claimed. In fact, it has helped to strengthen the firm's goodwill as the customer recognized that the firm wanted to help him do his repair job as reasonably as possible.

"Sooner or later that same customer has to call on us to repair something else on that refrigerator," says Williamson, "and he trusts us implicitly."

"It so happens, that independent servicemen are doubted or customers are reluctant to let them take a refrigerator out. But when they get the kind of treatment that we employ, we gain their full confidence and faith."

MAILS TO 125,000 CUSTOMERS

When the firm finds its backlog of repairing jobs getting a little low, Williamson makes a mailing to his regular list of customers. These number some 125,000. These names have been accumulated over the 25 years that Williamson has been in the refrigeration repair business.

The business reply card mailed offers a complete refrigerator check-up for \$2.95 covering 10 points of service. The firm mails out about 50 a day and when it has enough leads to work on, it stops the mailings until needed again.

"It is indeed seldom that we don't get a flurry of replies back from our mailings," said Williamson. "It seems as if all we have to do is remind people of our refrigeration service and they are interested."



HOME MECHANIC'S FRIEND: Harry Williamson of Philadelphia builds goodwill and future business for his refrigeration service firm by selling simple refrigeration parts that are easy to install to home mechanics so they can make the repair on their own boxes themselves. He also passes out free advice and instructions.

RENTS WATER COOLERS

Williamson and Davis also rents water coolers every summer. These rentals are to retail outlets, for large offices, and for professional offices.

Starting on March 15, Williamson and Davis puts on its water cooler promotional campaign. Four-inch, one column inserts on pages near retail store advertising, on the market and financial pages, and on the woman's pages catch the attention of many different types of businessmen and professionals.

In addition, the firm starts a direct mail campaign. A frank letter, asking employers if they are interested in cooled water for their employees, customers, or both is mailed out. The number of letters mailed depends upon the number of coolers that the firm has available.

OLD CUSTOMERS CONTACTED

"Each year we comb our list and contact the customers of a year before," said Williamson. "Some customers we lose because they purchase the water cooler. Then it is necessary to go out for other business."

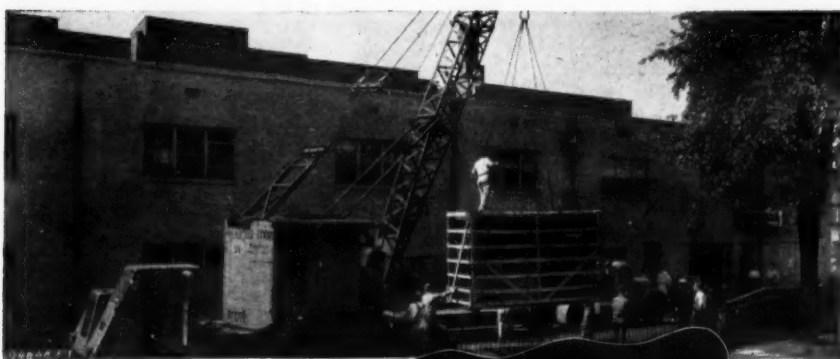
The firm has three prices for rental coolers, depending upon the type of cooler. Their portable model rents for \$4 per month, the cabinet model for \$5, and the fountain type for \$6.50 per month.

Williamson estimates that he dis-

tributes more than 300 such coolers every year for a four or five month season. About 20% of these rentals end up as sales. Customers are allowed to apply all the rental money against the final purchase.

A salesman from the firm visits each customer monthly to make the collection for the rental. These visits are made rather than billing because the firm wishes to see how well the

(Concluded on next page)



HOW TO SAVE UP TO
\$5,000
ON AIR CONDITIONING!



PAT. NO. 2,297,928

GOVERNAIR
COMPLETELY PACKAGED
AIR CONDITIONER

Save water! Save space! Save installation time and money! Save operating costs! Yes, install Governair and save from \$50 to \$200 for each ton of the completely packaged Governair unit designed to fit your needs!

Experience proves Governair can save you up to \$5,000 on a 50-ton Governair unit that gives greater dependability and more "engineered efficiency" than ever before!

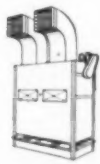
If you want the best—if you want the most economical and reliable air-conditioning unit on the market... CHOOSE GOVERNAIR and SAVE!



AIR CONDITIONERS



EVAPORATIVE CONDENSERS



UNIT COOLERS



BLAST COILS FOR HEATING & COOLING

*ORIGINATORS OF COMPLETELY PACKAGED AIR CONDITIONERS

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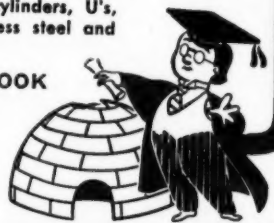
NEED COLD PLATES? Call DEAN!!!

For ice cream cabinets, locker plants, soda fountains, farm milk coolers, farm freeze cabinets, low temperature test rooms, window displays, liquid coolers. Also plates for baudelet-type coolers. Custom built plates available on special order such as cylinders, U's, angles, tanks, etc. Plates available in stainless steel and other metals.

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DEAN PRODUCTS, INC.

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Refrigeration Units WANTED

Desire to purchase 1/8 to 1-HP Sealed or open type; standard brands; Complete condensing units; Also parts; Give full details.

HARWOODE EXPORT CO.

31 E. 4 Street, New York 3, N. Y.

Loudon AUTOMATIC ICE CUBE MAKER

EXCLUSIVE FRANCHISE AGREEMENTS NOW AVAILABLE FOR FIRST TIME. WRITE IMMEDIATELY FOR TERRITORY YOU WISH TO COVER.

MAKES THE ONLY LARGE, SOLID, CLEAR, ROUND ICE CUBES ON THE MARKET TODAY (NO HOLES).

SANITARY — DEPENDABLE — STREAMLINED — COMPACT

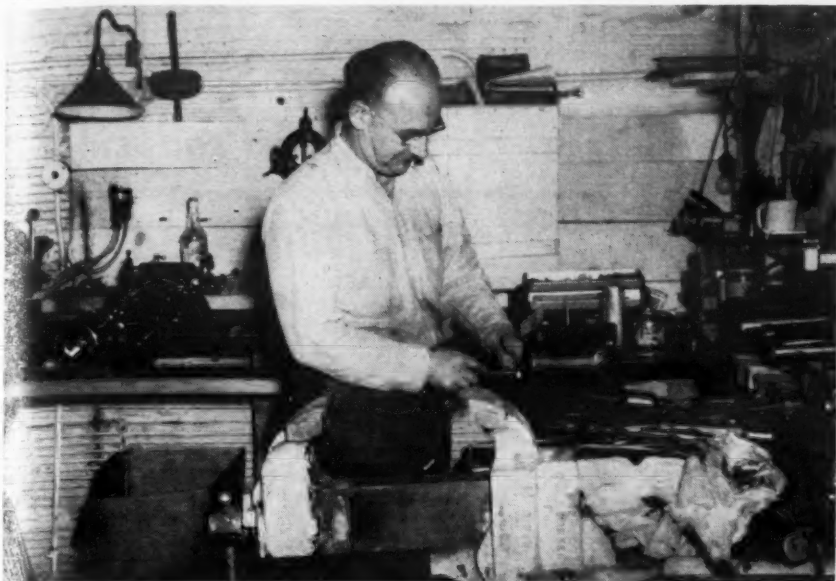
WILL FIT UNDER ANY BAR. 200 LBS. PER DAY.

DIMENSIONS: 35" High; 24" Wide; 38" Long

COLD-TROL CO.

2600 EUCLID AVE. • CHERRY 1-3801
CLEVELAND 15, OHIO





USES TRAINED SPECIALISTS: Williamson has two specialists, such as the one working on motors above, in his repair shop. They are kept busy handling the business brought in by the "home mechanics" who have run into more difficult repairs and the apartment house contract business that brings in a large part of the firm's revenue.



AND RENTS WATER COOLERS: In addition to his repair business, Williamson rents about 300 water coolers to local shops and offices each year. On this visible spindle file, he keeps track of each rental and turns about 20% of them into sales every season.

To Promote Rental of Water Coolers, Dealer Channels Efforts In Single Field

(Concluded from preceding page) customer is taking care of the water cooler.

At the same time the salesman can inquire if any additional water coolers are needed and may be able to recommend different locations where they should be placed.

"We find the sale of paper cups to be a good reason for visiting our customers," said Williamson. "Although we make a profit on them they just cover the visit made by our salesman. But it gives him an extra chance to see that our cooler is properly handled and to try to make extra installations."

During these visits the customers are also asked to purchase the cooler they were renting. As most of them keep the coolers for about five months, they practically pay 25% of the cost. This point is explained to them, and by the time the rental period expires, many sales are made.

Each year the firm makes a solid solicitation on one type of trade. One year it may place all its efforts with gas stations, another time it may go after the printing trade, another year after doctors and dentists, etc.

The reason for this concentration is that the firm does not want to

spread its efforts too thin. Results aren't too good if it does, Williamson has discovered. By concentrating on one trade, the company knows what customers want and has the type of cooler on hand best suited for that business.

"Last year we made a special effort to interest the printing trade in our fountain type coolers and found ourselves installing several in each plant," relates Williamson. "In the end we sold almost 50% of all the installations and replaced many with the portable type for the remainder of the year."

The firm keeps a complete file on every transaction. Rather than keep the files in alphabetical order as is usually done, the firm keeps its files according to street address.

Numbered streets are listed consecutively and name streets alphabetically. The firm has found that it is much easier to find the customer's location this way than by maintaining files by customer name.

"As Washington is constantly losing part of its population and always gaining new people, it is very difficult to try and keep track of people.

When we want to make a mailing or make a direct contact, we just

contact the occupant of a certain address and know that we are reaching the current owners or users of the refrigerator," said Williamson.

The firm also keeps a spindle type of file for cards on every customer that rents a water cooler. Whenever it is necessary to contact any of them, a twist of the spindle discloses every name.

The service company's parts department is carefully maintained. The entire stock room is divided so that parts for each type of appliance are stored in the same area.

In order to simplify part withdrawals, Williamson has printed up a sheet that lists the most popular parts for every appliance. This list names the part and the particular bin in which it may be found.

MacKenzie Represents G-E on Pacific Coast

SAN FRANCISCO—Dale E. MacKenzie has been appointed Pacific district sales representative for General Electric range and water heaters. He succeeds Howard Oliphant, who was made local manager of G-E appliance sales at Seattle, Wash.

MacKenzie joined General Electric in 1939 at Bridgeport, Conn. Until his new appointment, he was headquarters representative for the range and water heater division of the company.

Theater's Patrons Told How They Are Kept Cool

JAMESTOWN, N. Y.—A behind-the-scenes story on the air conditioning system in the new Wintergarden Theater was related in an institutional newspaper advertisement sponsored by Conditioned Air Co., Inc., who made the installation.

The advertisement carried a large sketch of an Anemostat air diffuser. Caption read: "Announcing . . . the new Wintergarden theater is scientifically air conditioned now—to give you extra comfort all year-round."

"This is an Anemostat. It is one of five installed in the theater—and all any patron ever sees of the Wintergarden's mammoth new air conditioning plant hidden away in the basement."

"The pure fresh air comes out gently here, diffusing slowly, evenly into the theater's inner atmosphere. So gentle, you never notice it is in operation to give you refreshing comfort."

"Behind these Anemostats is a complex system of ducts tracing back to 60 tons of modern scientific refrigerant coolers, compressors, and ventilating mechanisms. All the latest advances of air conditioning engineering are incorporated in their design."

"A giant in size, the air conditioning unit has a giant's capacity for work. It can completely change the theater's atmosphere—every cubic inch of air—in less than five minutes."

"This means clean, cool freshness will greet you at all times. In the winter the system provides a comfortable cozy warmth to cheer you—and in the summer it makes the Wintergarden a haven of relief from sultry weather. No drafts in any season. Just real good comfort."

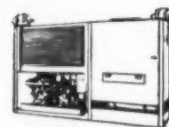
Squeeze every drop of value from water costs!



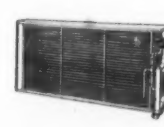
WITH A GOVERNNAIR EVAPORATIVE CONDENSER

You know how important water conservation is these days . . . and when it comes to saving water, Governair Evaporative Condensers are the most miserly, "water-savingest" condensers you ever saw! Yes, Governair will only use five of every 100 drops of water running through the condenser system and put 95 back to use again! You can't beat that for water-saving efficiency!

When your plans call for a top-notch, dependable evaporative condenser—choose the best—choose GOVERNNAIR!



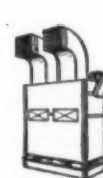
COMPLETELY PACKAGED AIR CONDITIONERS



BLAST COILS FOR HEATING & COOLING



AIR CONDITIONERS



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ORIGINATORS OF COMPLETELY PACKAGED AIR CONDITIONERS

GOVERNNAIR

GOVERNNAIR CORPORATION • 513 N. BLACKWELDER • OKLAHOMA CITY, OKLA

SALES MANAGER

20 Years Diversified Refrigeration Sales Experience
2 Years Sales Manager for Nationally Prominent Firm
Personally Acquainted with Refrigeration Wholesalers, Manufacturers, and Larger Dealers from Coast to Coast
Registered Professional Engineer
Free to Travel Extensively if Required
Available February 1

BOX NO. 3642, AIR CONDITIONING & REFRIGERATION NEWS

DEALERS - DISTRIBUTORS WANTED!

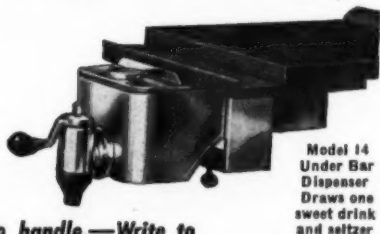
If you are prepared to handle sales, installation and service for our stainless steel soft drink Dispensers for Bars and Taverns, advise business experience and some facts relative to your financial ability.

INCREASES PROFITS FOR BARS AND TAVERNS

Exceptionally profitable to handle.—Write to

MULTIPLEX FAUCET CO. 4326 DUNCAN, Dept. ARN-14, ST. LOUIS, MO.

—MANUFACTURERS OF SOFT DRINK DISPENSERS OVER 45 YEARS—



Model 14 Under Bar Dispenser Draws one sweet drink and seltzer



Ranco has 8 models for WATER COOLER REPLACEMENTS!

Don't worry about finding the right replacement for Water Coolers. And don't hunt all over town. Just ask your Ranco wholesaler to show you the eight Ranco precision-built models specially designed for replacement installations.

REPLACE IT RIGHT WITH RANCO

Ranco Inc.
COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS

CHILL CHEST

The Greatest
VALUE in
FOOD FREEZERS

THE FAMILY'S
PREFERENCE EVERYWHERE



Revco, INC. • DEERFIELD, MICH.

LOOK to LARKIN

for Low Prices



LARKIN CEILING HUMI-TEMP

Price is only one factor in the selection of any product—especially one that has so important a task as protecting valuable perishables. Performance must come first. Quality cannot be overlooked. Durability is highly important. Larkin has all of these. And Larkin has low prices, too. Compare them and see for yourself how low they really are.

For the latest Larkin price list, see your wholesaler. If you wish, write direct to us and we shall be glad to send you one.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

519 MEMORIAL DR., S.E. • ATLANTA, GA.

Small Grocers Pool Self-Serve Meats

Rent Packaging Room from Packer,
Distribute to 10 Cooperating Members

ELLENSBURG, Wash.—A solution to the problem of self-service meats for the small grocer, is being worked out by a group of 10 independent Red and White food stores here. Under the leadership of Maurice Wippel of Wippel's Food Mart, these grocers have gotten together since 1949, when they established a central packaging plant which prepares fresh self-service meats daily to each of the member stores.

All participating stores are the small to medium sized category, the gross sales volume of the largest being approximately \$240,000 per year. The smallest grosses \$45,000 annually. The combined sales of the entire group total \$1,392,000 per year. Ellensburg is a town of 8,000 population.

The members work together on a voluntary basis, meeting once a week at their regular Tuesday luncheon to discuss different phases of their program, which includes group advertising and delivery as well as meats. Each member is free to stay out of any activity in which he does not want to participate, regardless of the majority's decision.

The group's meat packaging room is located in a room of a local meat packing plant which is rented for that purpose. The packaging crew consists of a manager who is the head meat cutter and an apprentice meat cutter, with two girls to do the weighing, pricing, and wrapping. The apprentice meat cutter also delivers for the six stores which participate in this phase of the program, in the afternoon.

The packaging crew begins work at 7 a.m., at which time the orders from the individual stores start coming in. Meat is cut only to order, so that member grocers are assured freshly packaged meat each day. Only grade A meat, cut fresh every day, is used. By 10:30 a.m., all orders have usually been filled and the packaging crew's work terminated.

Use of the packing plant's power cutting tools is included in the rent. The only equipment which the group has had to buy has been a cube steak machine and pre-packaging scales at a cost of about \$700. Members paid for this on a percentage basis determined by their meat purchases. Any member who wishes to withdraw, will have his investment returned, less depreciation.

To avoid the need for capitalization, Maurice Wippel, president of the group, pays the salaries of all four employees of the packaging room. At the end of the month, the packaging room manager reimburses Wippel for the amount he has paid out in salaries during that period.

Member grocers are charged according to the retail price of their purchases. At the end of the month, they are billed for their total purchases less 10%.

All meat is purchased from the packaging plant. The "dividends" are declared at the end of the year, with all profits returned to the members. Profits are distributed according to the individual store owner's meat purchases, again on a percentage basis. With a \$2,000 net profit for the packaging room, therefore, an owner who had purchased 10% of the total output for the

year, would receive \$200. In addition, he would already have cleared 10% throughout the year on his monthly purchases.

Prices on all packaged meats are kept strictly competitive with those of competing independents and chains. Prices of the latter are checked regularly, to make sure the group's prices are kept in line.

The packaging room packages only fresh meats, with members who wish to do so, wrapping their own lunch and delicatessen meats.

The method enables the smallest operator to sell fresh self-service meat at a profit, at prices competitive with the largest chains. Moreover, such an operator in most cases would not even be able to handle service meats at a profit. For the medium sized operator, it reduces operating expenses substantially through mass purchasing of wrapping supplies and of meat.

The packaging plant can buy wrapping materials for a year's volume of business at a discount, while the individual store owner would have to buy 10 years' supplies in advance, to obtain a corresponding saving. And the central plant maintains a consistent level of quality which it would be difficult for the individual operator to meet. One of the owners, after the plan had been in operation for a period of time, discovered that his overhead for meats had been cut in half.

The volume of business handled by the group in 1949, was \$60,000 in fresh meats. A net profit of \$1,600 was cleared, which was returned to the member merchants on a percentage basis of purchases from the packaging plant made during the year.

7,500 In East View M-H 'Parade of Progress'

MINNEAPOLIS — Attendance at Minneapolis-Honeywell's traveling "Parade of Progress" road exhibit has exceeded expectations, according to reports from the first 10 cities in the eastern and mid-Atlantic region where it has appeared.

More than 7,500 architects, heating and ventilating engineers, school and hospital administrators, and transportation technicians have seen the exhibit to date, M-H officials said.

The largest attendance for one city was recorded in New York City, where nearly 1,900 saw the show. Other cities visited included: Rochester, Syracuse, and Albany, N. Y.; Hartford, Conn.; Newark, N. J.; Providence, R. I.; Portland, Me.; Boston; and Philadelphia.

The exhibit—38 working models of the latest pneumatic, electric, and electronic controls—is currently in the southeastern region. Before 1952 the show will have visited 60 cities.

Sunbeam Quotas Announced

CHICAGO — Sunbeam Corp. here has announced that its distributors will receive allotments during the first quarter of 1951 on the basis of half what they sold during the last six months of 1950.

Chemists Recall How In 48 Hours They Solved Problem of Producing 'Freon' Economically

WILMINGTON, Del.—It took just about 48 hours for chemists to determine basically how "Freon" fluorinated refrigerants could be made at sufficiently low cost to make possible the transformation of a laboratory discovery into a new American industry.

The story came to light through reminiscences of the pioneer laboratory men who discovered that what is known as "Freon-12" would make an almost ideal refrigerant.

Tribute to the early "Freon" researchers came in the form of "certificates of recognition" which the American Society of Refrigerating Engineers presented to Dr. Thomas Midgley, Jr., posthumously, and to Dr. Albert L. Henne and Robert R. McNary during the society's 46th annual meeting. The awards were made by Dr. Charles F. Kettering, technical consultant and vice president of the General Motors Corp.

Before the discovery could be made the basis of an industry that was to witness the expansion of domestic refrigerator production in 20 years by nearly six million refrigerators in 1950, someone had to find a way of cutting "Freon" manufacturing costs to a point where a market could be developed. The problem was assigned to Dr. H. W. Daudt and Dr. M. A. Youker at the Jackson Laboratory of the Du Pont Co.'s Organic Chemicals Department. But, before the goal was achieved, the help of a dozen or more Du Pont chemists was enlisted.

While it is literally true that Dr. Daudt and Dr. Youker had been at work less than two days before they knew basically how "Freon" could be made by a continuous process, it also is true, as one of their colleagues recalled today, that "a lot of blood, sweat, and tears" was to be expended before the manufacture of "Freon" could be called a business.

Among other things, the unique

stability of the material had to be demonstrated beyond a shadow of a doubt. It had to be proven beyond controversy that "Freon" was non-flammable and, essentially, non-toxic.

But the tough problem was the process development. At the end, Dr. Daudt and Dr. Youker came up with a continuous process that cut materials handling to one fifteenth of what it had been in the original batch process and reduced the consumption of one of the most expensive materials to several thousandths of the previous rate.

Now "Freon" could be made commercially, but, while the process was improved in subsequent years and still is used at one Du Pont plant today, the chemists were not satisfied. About 10 years ago another Jackson Laboratory team of A. F. Benning and R. C. McHarness, started work on a new process which, when perfected, put an end to a major material loss and greatly reduced the amount of manufacturing equipment necessary.

Had it been essential, or even commercially possible, to make "Freon" fluorinated refrigerants as the first of them was produced in the laboratory, "Freon" plants today would cover acres instead of hundreds of square feet. And but for the work of Dr. Daudt, Dr. Youker, Benning, McHarness, and many others, "Freon," made by the original process, would cost, conservatively, from two to five times what it costs today.

In 1932 "Freon-12" was used in a large air conditioning system for the first time. The system was installed in the Senate Office Building in Washington, D. C., by the York Corp. At about this time, the Carrier Corp., which had been using a relatively satisfactory refrigerant, undertook the adaptation of "Freon-11" to its equipment because it could use it in a more efficient, smaller machine.

Cabinet Engineers Refrigeration Engineers

We have openings for cabinet engineers and refrigeration engineers for our product design department.

If you're interested in pleasant working conditions, the chance to grow with an expanding organization, and many employee benefits—then you'll like working here. These are permanent positions.

All replies will be treated with strictest confidence. Apply to General Manager,

Amana Refrigeration, Inc., Amana, Iowa.

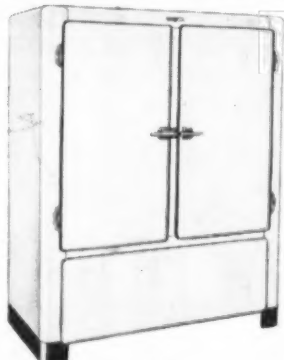
Only Gives You Grad-U-Matic Air Conditioning and Life-Time Porcelain Finish

Top Quality Refrigerators — 51 Different Models

{ OR STAINLESS
STEEL EXTERIORS }



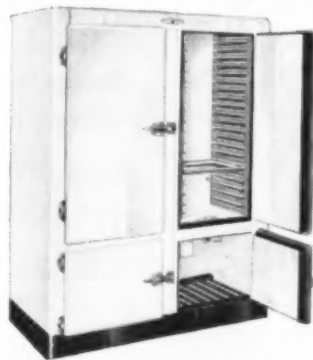
Model P-45-G
(Self-Contained)



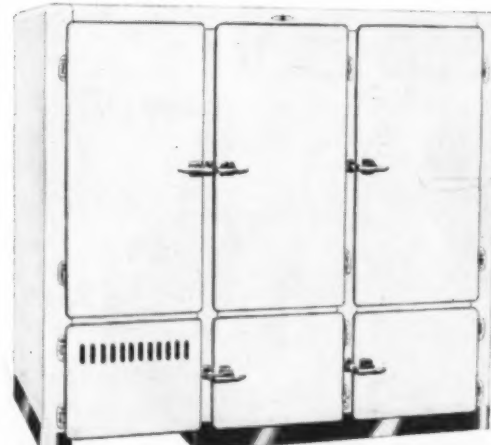
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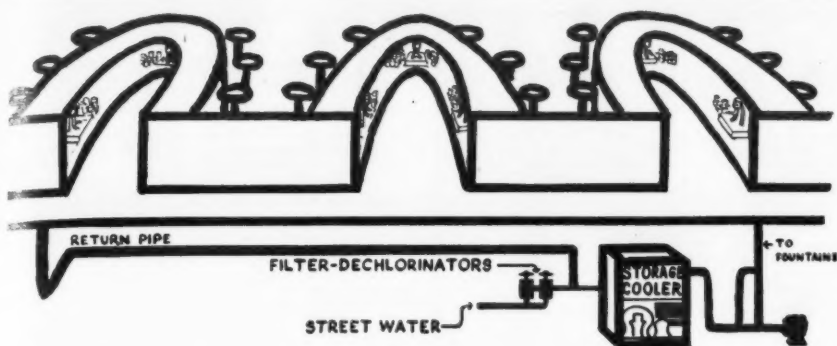


Fig. 1—Illustrates the use of circulating, chilled, and conditioned water to numerous outlets.

Supplying Pure, Chilled Water For Restaurants

Installing Equipment Suited to Operation Is Key

By C. F. Hansel, President, Filtrine Mfg. Co.

To assure an economical, but fully adequate supply of properly chilled water—free of chlorine and other tastes and with all trace of discoloration and sediment removed—is of prime importance to the food service operator and to the refrigeration dealer.

Equipment suitable for day-around service should be specified with full regard for economy of operation and for an extended life of service efficiency. These factors are governed not merely by the manufacture of the water cooling and conditioning plant, but also by the proper suitability of the unit with respect to its capacity and specific function.

Certain general specifications for water-cooling equipment apply to all types of eating places. However, in establishing individual requirements, the type of eating place should first be defined and the special problems in each case considered.

These various types are:

- A. Restaurants . . . (service)
 1. Table Service
 2. Counter and Table
 3. Sandwich Bars
 4. Soda Fountains
- B. Cafeterias . . . (self-service)
 1. Public
 2. Office—Factory

The demand for drinking water at restaurants and cafeterias, like food, comes in peak 2-hour periods. Whether the peak comes once, twice, or three or more times a day depends on the individual restaurant, but it is always a "peak."

Whether glasses are filled from faucets, or pitchers filled from faucets, the rate-of-flow is large and must determine the selection of equipment.

"Peak requirements" and "large per minute-flow-rate" are the two fundamental capacity requirements that must be considered.

Temperature reduction is of prime importance. Americans like their water cold. Most operators want their water served at 45° F. Appearance and taste of water is just as important as temperature.

Filters are installed to remove iron rust and suspended matter and rectified-dechlorinators to remove chlorine taste, as well as make the water sparkle.

STORAGE

Refrigeration engineers and restaurant specialists have long recognized and agreed that large storage of chilled water, ready and waiting to be withdrawn at fast rates, during one and two-hour peaks, is the proper way of meeting restaurant drinking water requirements.

Relatively low horsepower refrigeration machines can be used if large storage is provided. Off-peak operation permits building up large hold-over storage with which to meet peak demands. Long-cycle operation makes for efficiency, long life, quiet operation, and low operating cost it was pointed out.

A sparkling glass of chilled water, in a gleaming, polished glass, is the engraved calling card of the successful restaurant operator. In restaurants of all types, it is the patron's first introduction to the standards and quality of the establishment.

Whether it is presented at a table, or drawn by the patron, it is the initial gesture of hospitality that

normally makes a first, and lasting impression.

Restaurant table service requires the filling of carafes or pitchers. The filling stations are generally a part of the serving pantry and are usually supplied from remote coolers or by circulating systems.

When circulating systems are used, the heat input of the circulating pumps (746 watts x hp. x 3.4 = B.t.u./hrs.) and the line loss of the circulating line (allow approximately 3 gal./hr./100 lineal ft. of 1-in. pipe covered with ice water thickness cork insulation) must be added to the hourly requirement.

When dining rooms are on several floors, circulating systems are preferable. (See Fig. 1.)

SODA FOUNTAINS

In recent years soda fountains have been enlarged to such an extent that today they have taken their place as a leader in the "counter-table" type of eating places (glass service).

Soda fountain manufacturers have been hard pressed to keep pace with the "sweet" water load with conventional fractional horsepower units.

The severe peak-load requirements caused by the expanded soda fountain trade can best be met by installing one or more storage-type coolers in the basement to act as pre-cooler boosters to the over-worked built-in cooler that is conventionally furnished with soda fountains.

Practice has proved that, one or more, 10 or 25-gal. storage coolers (one for each 10 seats) suitably spotted and connected in multiple to one machine, can successfully meet peak load requirements and can also furnish pre-cooled water to the carbonators. (See Fig. 2.)

OFFICE-FACILITY-CAFETERIA

The problem facing all office and factory mass "eating places" is quick turn-over. Almost invariably such places are of the cafeteria type and are often forced to operate in shifts allowing as little as 20 to 30 minutes per eating period. Large "storage" of chilled water is vital to success.

Drinking water stations should be kept away from serving counters to avoid congestion. "Speed-up" of personnel is accomplished by multiple drinking stations.

Due to scattered locations of drinking stations they are generally of the self-contained type with water-cooled condensing units and with multiple fixtures.

Equipping the back of the cooler with fixtures, the same as the front, giving due consideration to the increased capacity requirement is one way of speeding up the traffic.

Such installations are often referred to as "island" stations and adequate space must be allowed. (See Fig. 3, 4, 5.)

SPECIFICATIONS

When writing specifications the following must be covered:

- a. Purpose, location, and quantity of equipment required.
- b. Capacity required: Storage and gals./hr. reduced from 80° to 45°.
- c. Type of equipment i.e. (cabinet self-contained).
- d. Finish: Stainless steel or Duco.
- e. Shelves for glasses—location and description.
- f. Type of fixtures, location, and quantity.
- g. Make, model, horsepower, cur-

Pre-Cooling & Filtering Water for Soda Fountains

- A. & B. Built-in Cooler for carbonated and fresh water.
- C. "Booster" supply of chilled fresh water from Storage Cooler, to increase capacity of built-in fresh water cooler.
- D. Street water inlet to Filter.
- E. Insulated chilled water line to C, at 1, 2 or 3 locations.
- F. Insulated chilled carbonated water line to A.
- G. Insulated chilled water supply to carbonators.

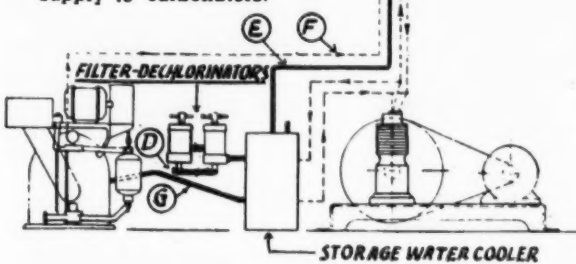


Fig. 2—Storage cooler used to supply chilled water to carbonator and to "boost" built-in sweet water coolers. Every soda fountain is a miniature bottling plant and should be equipped with adequate water cooling and water conditioning equipment.

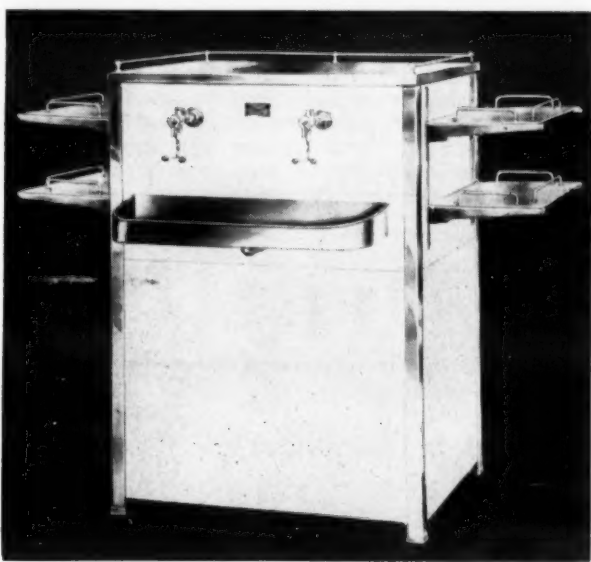


Fig. 4—Typical self-contained cabinet cooler arranged for glasses on top and/or side shelves for trays or glasses.

rent, and B.t.u. capacity @ 26° suction temperature of condensing unit desired.

TYPICAL SPECIFICATIONS FOR A CABINET-TYPE SELF-CONTAINED COOLER

Typical specification for architects and engineers:

Contractor shall furnish and install where shown on plans: Self-contained cafeteria type storage water cooler having a cold water storage unit of not less than (14, 25, 43, or 40) gallons and a capacity of not less than (see Form 707) per hour, without pre-cooler, reducing the water from degrees to degrees and a two-hour peak capacity of not less than gals. (See Form 707.)

Cooling tank to have an evaporator surface of not less than (9, 16, 27, or 44) sq. ft. which is to be constructed of extra heavy steel pipe hot galvanized on the exterior after fabrication.

Cooling unit to be fabricated of heavy steel plate, riveted and welded, hot galvanized inside and out after fabrication, and tested for 125 lbs. working pressure.

Cooling tank to be insulated with not less than 2 in. of corkboard sealed with hot asphalt and housed in upper section of cabinet constructed of furniture sheet steel around angle iron frame.

Cabinet to be complete with chrome-plated corner legs and trim, satin finish stainless steel top with chrome-plated brass guard rail, together with deep, round-cornered satin finish stainless drip tray, and suitable splash guard.

Top to be sturdy design and suitable for supporting glasses. Two ends of cabinet to be equipped with adjustable brackets (2, 4, or 6) for supporting standard size cafeteria trays (or with shelves having guard rail for supporting glasses).

Cabinet to be equipped with (2, 4, 6, or 8) chrome-plated brass push back type glass fillers (mounted on front or front and back).

Lower section of cabinet to be of

sufficient size to house hp. condensing unit having a B.t.u. rating of hourly, operating at degree suction temperature and to be similar to their model number (Condensing unit to be selected in accordance with capacity requirements.)

Finish of cabinet to be white Duco (or to match color sample to be furnished. May also be furnished in all stainless steel exterior).

Cooler to be in detail accordance with Model and to be equipped with Filtrine Style No. 4 Filter, including two dozen spare filtering elements, all as manufactured by Filtrine Mfg. Co. (See Fig. 5.)

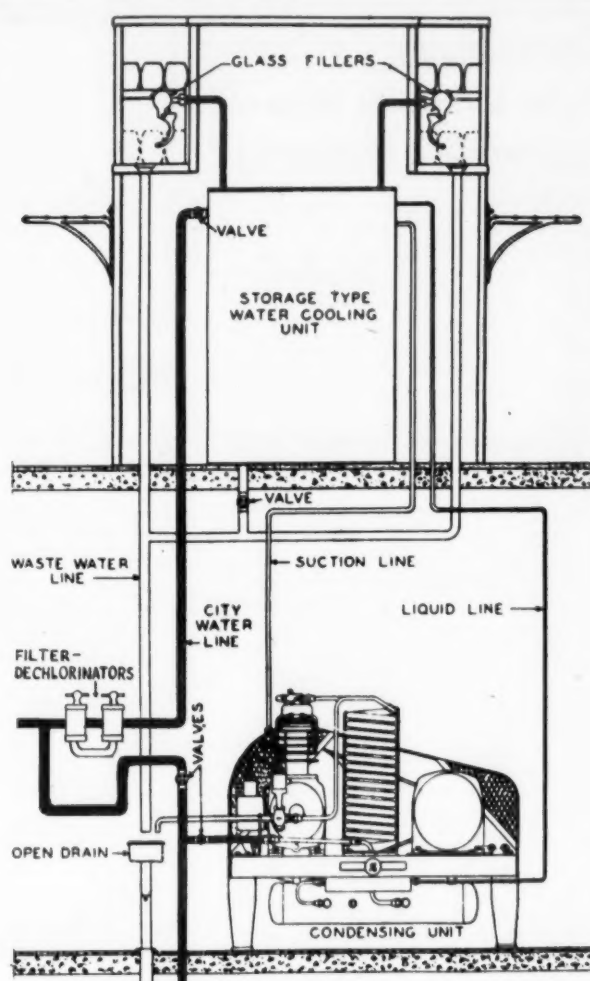


Fig. 3—System for heavy-duty cafeterias with large storage cooler within cabinet.



Fig. 5—Remote-type storage cooler under-counter with condensing unit remote.

Erie ASRE Hears Talk on Cold Welding of Aluminum

ERIE, Pa.—G. O. Hoglund and Frank Gordon, welding engineers from the Alcoa process development laboratory, addressed members of the Erie section, American Society of Refrigerating Engineers, at their January meeting in the General Electric Community Center. They discussed the subject of "Cold Welding of Aluminum."

Another feature of the meeting was showing of a film entitled, "Service Unseen," concerning the history and development of air conditioning.

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Auto-Lite Thermometers are designed to give you the broadest selection for your needs: Priced low and precision-made for accuracy, these instruments point the way to temperature savings and help to prevent spoilage. Write for catalog showing the many styles and types of Auto-Lite Thermometers that are available.

TYPICAL APPLICATIONS: STORAGE TANKS & ROOMS, COOLERS, DRYERS, AIR CONDITIONING

Illustrated, at top: Model G Indicating Thermometer, flush mounting type with capillary tubing for remote reading. Priced from \$18. At bottom: Model V Thermometer (vapor pressure type). Rigid stem for direct mounting. Priced from \$10.25.

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 INSTRUMENT AND GAUGE DIVISION, DEPT. A-1
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INDICATING & RECORDING THERMOMETERS

Party-Planning Service For Customers Helps Store Sell Kitchens

WICHITA, Kans.—Putting a home economist at the beck and call of purchasers of complete kitchens has sold many additional kitchens for the Model Kitchen Stores here.

George Bolinger, manager of the three local stores, explained that the company's two home economists stand ready to help kitchen customers in planning parties and in ways to get more use out of their kitchens. In addition, the home economists make the initial follow-up call two weeks after installation to educate the housewife in the use of her new equipment.

Bolinger gives the home economists a lot of credit for the rapid growth of the firm, which claims to have installed hundreds of complete kitchens here since the end of World War II.

Model Kitchen Stores recently opened its third unit at 1551 S. Emporia St. and for the occasion had the home economists prepare a half dozen hams and turkeys to distribute as prizes during their two-day cooking school.

The company is franchised with 11 brands of appliances, cabinets, and accessories. It can offer package kitchens all the way from \$700 to \$3,000.

Buffalo Appliance Firm Files

BUFFALO—A business name has been filed for Stark's Appliance Store, 14 Allen St., here, by Agnes M. Stark.

Refrigeration Problems and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Mixing Water Vapors & 'F-12' Vapors (4)

We have learned that if we pump a vacuum of 29½ in. of mercury on a coil in a 60° F. room, we can get the dewpoint of the water vapor in the coil down to about 54°. If we want to use this coil at 20°, about 3½ drops of water per cubic foot of coil will condense out by the time we are down to 20°, so we must reduce the dewpoint to 20°, or below, if the coil is to be dry enough to be used as an evaporator at 20°. How then can this be done?

DRYING BY HEAT AND VACUUM

Baking a coil in an oven is a way that is commonly used to dry it. If there is any water in the coil, it will boil at the temperature to which the coil is heated, if the pressure is kept down to the saturation pressure corresponding to the coil temperature. The hotter the coil, the higher the pressure at which the water in it can boil, and the drier we can get the coil with the 29½ in. of vacuum.

How hot we can heat the coil depends largely upon its construction. If it is soft soldered, it would be unwise to heat it above 300°, for 50-50 solder begins to melt at 360°.

If it were soldered with "ninety-five five" (95% tin, 5% antimony), we could heat the coil to 400°, for "ninety-five five" starts to melt at about 450°. Silver soldered coils could be heated higher as far as the joints are concerned, for most silver alloy solders and brazing alloys melt above 1,100°, but the tin coating on the coil would be damaged, so it is not often, even with silver soldered coils that we dare go much above three or four hundred degrees.

Let us heat this coil to 300°. At atmospheric pressure, water boils at 212°, but at 300° it develops a steam pressure of 52.3 p.s.i.g. or 67 p.s.i.a.

Any water in the coil will be boiled off and evaporate, and if it is purged or drawn off, so that, when all the water is boiled away, a saturated water vapor will remain, at a pressure of 52.3 p.s.i.g. or 67 p.s.i.a. The dewpoint of this saturated vapor is therefore 300°, and its density is .1547 lbs. per cubic foot.

If we now connect the coil to the suction side of the compressor and

pump a vacuum on the coil of 29½ in. of mercury (or .2063 p.s.i.a.) we will pump out a great deal of the water vapor, and thus reduce its density in direct proportion to the reduction in pressure.

Since we reduce the pressure from 67 p.s.i.a. to .2063 or 325 times, we also reduce the density 325 times from .1547 to .000476 lbs. per cubic foot. To find what the dewpoint of this rarified vapor is, we look in the steam tables to see what the saturation temperature of steam is that has a density of .000476 p.s.i.a.

However, most steam tables show specific volume instead of density. To find specific volume we merely divided one by .000476 and get 2,100 cu. ft. per pound as the specific volume. In the steam tables we find that the temperature of saturated steam that corresponds to a specific volume of 2,100 cu. ft. per pound is just a little over 44°; so the water vapor at 29½ in. of mercury vacuum, heated to 300° has a dewpoint of 44°.

We wanted to reduce the dewpoint to 20° or lower so that we would condense out no free moisture; but heating the coil has only enabled us to reduce the dewpoint from 54° to 44°, far short of the 20° dewpoint we wanted.

Even if the construction of the coil were such that it would stand it, and we could heat it to 400°, we would only reduce the final dewpoint temperature of the water vapor a couple of degrees more, that is, to between 42 and 43°.

BAKING IS RAPID ROUGH-DRY METHOD

So it is obvious that heating the coil is not the answer; it is not the way to obtain a low enough dewpoint to dry a coil down to even 20°. About all the heat does is speed up the boiling or vaporizing of the free water into saturated vapor. It is a quick rough-drier, but we would have to use something in addition to the heat and a 29½-in. vacuum.

By baking the coil (which has an internal volume of one cubic foot) to 300 or 400° and pulling a 29½-in. vacuum we can get down to a dewpoint of 43 or 44° and reduce the density of the vapor to about 450 or 475 millionths of a pound per cubic foot, or as we sometimes say, 450 or 475 parts per million,—abbreviated p.p.m. This much moisture is about three drops of water, much more than enough to cause expansion valve trouble.

One way to reduce this moisture content is to use a drier of silica gel, activated alumina, or Drierite; and that is what is done in most cases. We first rough-dry the coil by heat and vacuum to get the free water out, put the coil in service, charge the system with refrigerant, and use a drier to finish-dry the system.

We will remember that, using a 29½-in. vacuum we got the moisture content of the coil down to .000675 lbs./cu. ft., corresponding to a dewpoint of 54° without heating the coil in the 60° room. Still using a 29½-in. vacuum and heating the coil to 300°, the moisture content went down to .000475 lbs./cu. ft., corresponding to a dewpoint of about 44°.

We did not gain a great deal by

going to the trouble of taking the coil out and baking it, but we did greatly speed up the removal of the moisture. The heat supplied the latent heat of vaporization that was absorbed by the one or two ounces of water in changing to water vapor.

HEATING THE COIL ON THE JOB

Instead of removing and baking the coil, we could have heated it enough by setting up a few infrared electric bulbs near the coil and directing them on the coil; at the same time pumping a 29½-in. vacuum on it.

This would speed up the removal of the water, and rough-dry the coil. Then we could have finish-dried the system with a drier of silica gel, activated alumina, or Drierite.

(To Be Continued)

Firm's New Bldg. Will Be Used for Storage, Display

LITTLE ROCK, Ark. — Roy E. Stueber, president of 555, Inc., wholesale Little Rock distributor, has announced that construction is already under way on an immense new warehouse and sales display rooms to accommodate the company's expanding business.

The new \$500,000 building will measure 450 ft. in length and 255 ft. in depth, and will be constructed of concrete and steel, with overhead sprinkler system. It will be located on a main thoroughfare at 1600 E. Washington Ave., North Little Rock, convenient for both rail and truck deliveries.

The building, which is expected to be completed by April 1, will be used partly as a warehouse for the appliances which 555 distributes and also as a modern sales display room for the various lines of merchandise handled.

The household appliance division now distributes such lines as Kelvinator, Bendix home laundry, American Kitchens, Estate ranges, and other nationally advertised brands.

The 555 company has been in the wholesale distributing business for 25 years. Specialty salesmen comb the Arkansas territory intensively, each man calling on all of his dealers at intervals not exceeding three weeks.

Colcock Elected Head of New Orleans Association

NEW ORLEANS—Hutson Colcock was installed as president of the Electrical Association of New Orleans, Inc., at its annual Christmas party.

Also installed were Walter J. Barnes, executive vice president; Don R. Smith, vice president representing wholesalers, utilities, and manufacturers; James Soniat, vice president, refrigeration; Z. Kermit Remy, vice president, electrical contractors; C. Espy Reed, vice president, air conditioning and ventilation; Herman J. Estrade, vice president for radio and television; W. E. Clement, director of publicity; Eugene H. Mowen, secretary; and I. W. Tufts, treasurer.

Stehlik Gets G-E Auditing Post

BRIDGEPORT, Conn. — Frank E. Stehlik has been appointed auditor of the General Electric Appliance & Merchandise Dept., it has been announced by D. L. Millham, controller of the company.

Stehlik joined General Electric at Schenectady, N. Y., in 1934 following his graduation from the University of Wisconsin.

March 1 Is New Closing Date

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THREE DIVISIONS

1. Packaged Unit 2. Room Cooler 3. Central System

75 PRIZES (25 In Each Division)

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SECOND \$50

THIRD \$25

Next 10 Best Entries \$10.

Next 12 Best 1 Copy of "Both Feet on the Ground" by George F. Taubeneck

Duplicate Prizes Will Be Awarded In Case of Ties. Judges Decisions Will Be Final.

JUST FOLLOW THESE SIMPLE RULES

1. Submit picture of installation to show unusual aspects.
2. Write brief, complete description including:
Customer's name, address.
Type, name of air conditioning equipment used.
What job equipment is intended to do.
In what way is application unusual?
What were installation problems, if any?
How was sale made?
3. Mail picture, description to
CONTEST EDITOR,
AIR CONDITIONING &
REFRIGERATION NEWS,
450 W. Fort St., Detroit 26, Mich.

All air conditioning contractors, dealers, and their employees are eligible to enter.

ATTACH THIS COUPON

AIR CONDITIONING & REFRIGERATION NEWS
450 W. FORT ST., DETROIT 26, MICH.

Here is my entry in the unusual air conditioning application contest.

Picture is: attached ☐ sent under separate cover ☐

Please enter me in the following division:
Room Cooler ☐ packaged unit ☐ central system ☐
(As many separate entries may be made as desired.)

Name

Firm

Street & No.

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Please ☐ Distributor ☐ Dealer ☐ Contractor
Check ☐ Service ☐ Other

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Operator Gives 9 Basic Rules To Assure Success Of Supermarket's Self-Serve Meat Department

PHOENIX, Ariz.—The supermarket operator "can't go wrong" in self-service meat merchandising if he will follow a set of nine basic rules, according to Reese Verner, general manager of the A. J. Bayless Markets here.

Bayless Markets, operating 10 stores in the Phoenix, Tempe, and Glendale Park area, cannily "held off" on installation of self-service meat facilities until experience had been gained by larger chains elsewhere in the country.

After several months of studying the experiences of operators in other parts of the country, one Bayless store was converted to self-service, to serve as a "pilot model" for similar operations in the rest of the stores. Several months were consumed in studying the "do's and don't's" of self-service in this store before the second was opened.

"We eliminated drawbacks and developed sales-building assets from one market to another, as successive self-service departments were opened," Verner said.

After testing and discarding several features of self-service as applied in other parts of the country, Verner has developed nine basic rules which he feels will make self-service an outstanding success in any supermarket in the country. These are:

1. "Sell the temperature."

One of the worst draw-backs to self-service meat sales, Bayless stores believe, is the fact that the housewife does not trust the refrigeration in open self-service cases, and feels that while the meat may be fresh on display, it will spoil rapidly when she gets it home.

Therefore, each Bayless store puts a thermometer in every self-service refrigerated case, which shows precisely what temperature is maintained, and that this is as low if not lower than that maintained in the enclosed glass cases in the old service-type of meat market. Pointing out the thermometer to dubious customers has had the advantage of converting many into regular self-service purchasers.

2. Sell only grade A, No. 1 meats on a self-service basis.

Where many customers will accept the butcher's recommendation that meats are fine and tasty, although of lower grades, this is not possible in self-service. Pointed out was the fact that only one package of poor-flavored or unsatisfactory meat can cost the supermarket a dozen customers, and the dissatisfied customer reports the incident to her neighbors, her relatives, and friends.

3. "Dress up the meat."

Much stressed in each Bayless store is careful, precise trimming to give the meat maximum eye-appeal on display. Meats are difficult to show in the fresh state, with rich color

contrasts and maximum eye-appeal. However, in self-service, every bit of excess bone, fat, gristle, etc., must be trimmed away and a style of packaging worked out which gives maximum eye-value to every cut.

The store has found that packaging methods worked out for one type of meat will "bog down" with another variety if sold in the same wrapper and package design. Thus, it is necessary to create an individual type of package for each cut of meat.

4. "Maintain freshness."

To insure that no self-service cut of meat ever spoils rapidly in the customer's home, Bayless stores "code" every package with a number and symbol on the label. Thus, meat department personnel know at a glance the maximum number of hours which each cut may be displayed. Whenever a package exceeds its "code life" it is immediately removed.

Through good merchandising methods and cutting and wrapping only commensurately with the demand, there are few such instances. However, Bayless Markets absorb the loss of any package meats which exceed their code lengths, rather than to antagonize a single customer.

5. "Keep the personal angle alive."

Whereas many stores have looked upon self-service as a means of cutting down on personnel payroll costs, Bayless Markets instead have actually hired an additional "hostess"—a uniformed, well-trained young woman, whose job is to maintain the personal link which formerly existed between butcher and customer.

She is stationed in front of the self-service cases to answer questions, explain the system, find specific cuts of meat for the customer, and assist in many other ways. Also, she may help in stocking the cases, in keeping track of code marking, and rearranging the displays after they have been handled by customers.

How well this idea works out may be seen from the fact that there are as many as a dozen instances per day in which random customers have voiced objections to self-service meat, which were permanently overcome through explanation on the part of the hostess.

6. "Careful use of labels."

One of the worst features of self-service selling, Bayless stores found, was the practice of pioneers in the field of using large labels to conceal gristle, bone, and unsightly portions of meat cuts on display. This practice, while not intended as deception, had the same effect on customer goodwill, it has been learned.

Therefore, every cut of Bayless meat, within its cellophane wrapper, shows as small a label as possible, tucked away in one corner where it

reveals the maximum surface area of the meat.

7. "Train all employees of the store for familiarity with self-service operations."

Surprisingly, Bayless stores discovered that in many supermarkets, employees of other departments in the store knew nothing about the self-service meat operations, and were inclined to be distrustful themselves.

Therefore, not only meat department employees, but those of other departments in the store now undergo a complete training program whereby each is informed of every step from meat receipt to the final sale, and its advantages to both store and consumer carefully played up.

8. "Guaranteed refunds."

As nationwide radio advertisers have found, nothing builds immediate confidence on the part of the public better than an offer to refund the full purchase price if the customer is dissatisfied.

Therefore, signs are spaced every two feet along self-service meat displays in each Bayless market, guaranteeing unconditional refunds in the event of dissatisfaction. In addition, the hostess in each store explains the same offer to each of her customers.

The result has been that the "die hards" who would never otherwise try the system through fear of los-

ing their investment in a single package of meat have been converted to enthusiastic customers.

9. "Ample refrigerated display capacity."

While it is possible to "load up" the self-service case with some degree of safety, it is far better to use two cases for the same amount of meat, insure a smoothly-moving, uniformly cold blanket of air, and better-spaced display, Bayless markets have found.

A few packages neatly spaced and cold to the touch have far more eye-appeal than careless stacks of the same kind of meat, it has been learned. Therefore, Bayless self-service meat markets have anywhere from three to six display cases, depending upon volume, and a limit has been placed on the amount of meats shown in each.

Through these methods, self-service has gradually "taken over" in the Arizona stores—and although there was no meteoric increase, such as has been experienced in other parts of the country, the Bayless firm knows that its self-service meats are permanently popular with the public.

GECC Names Agents In 2 Areas

DALLAS — Donald M. McQueen has been appointed local representative for General Electric Credit Corp. in Laurel, Miss., according to L. E. Scott, southwestern district manager in Dallas.

Richard H. Teets was named local representative for the General Electric Credit Corp. in Saginaw, Mich., by H. T. Lees, east central district manager in Cleveland.

Teets will operate under the Detroit office.

Humidity Control Device Designed To Aid Lettuce And Strawberry Shippers

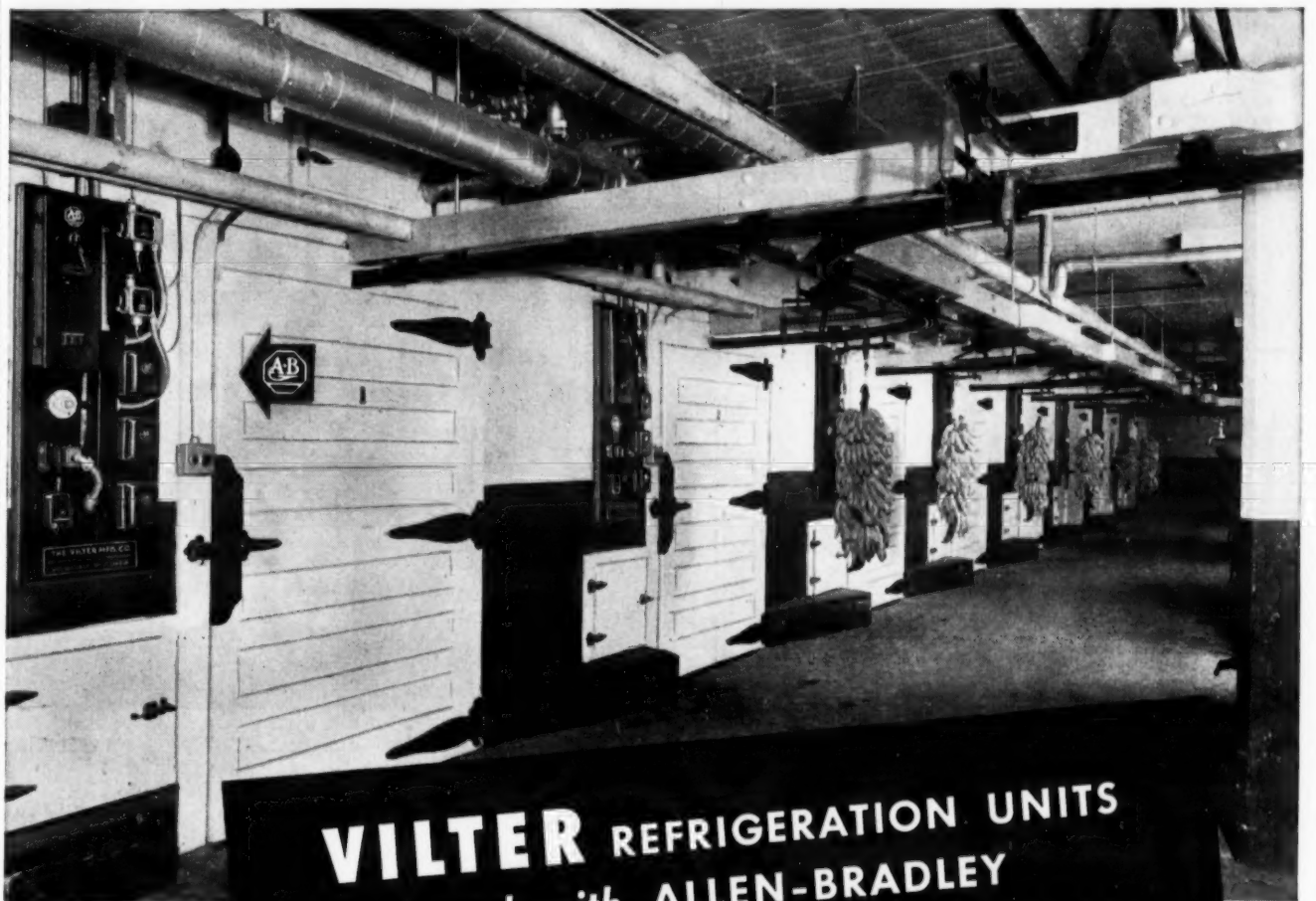
NEW YORK CITY — A development of prime importance to shippers was revealed at a recent press conference by Frederick McKinley Jones, chief engineer at the U. S. Thermo Control Co., manufacturer of transport refrigeration systems.

That development is in the field of humidity control, a refinement of the mechanical refrigeration process that is expected shortly to enable shippers of such products as lettuce and strawberries to avail themselves of the advantages of mechanical refrigeration. It will eliminate top and body icing, and prevent slime, mold, wilting, and dehydration, it is claimed.

Jones' invention involves a system of dampers that seal off the cargo compartment and stop the fresh produce from "breathing." These dampers do not swing into sealing position until moisture brought out by the preliminary cooling process has been carried away.

But once the product has attained the desired coolness, the "lid" goes on and the refrigerated air, for the remainder of the haul, is confined to the cold wall that envelops the car. To prevent stratification, a small auxiliary fan circulates air within the cargo space.

The humidity control device, likened to the "crisper" compartment in a home refrigerator, will eventually become standard equipment on Thermo-King units for both railroad cars and trucks.



VILTER REFRIGERATION UNITS
equipped with ALLEN-BRADLEY
TROUBLE FREE MOTOR CONTROLS

Vilter Refrigeration Units in a Detroit grocery equipped with A-B Bulletin 709 Solenoid Starters and Bulletin 712 Combination Starters...trouble free.



Why are Allen-Bradley starters so popular for refrigeration and air-conditioning service? . . . Because they do not require regular attention; they are trouble free. Only ONE moving part. No pivots, pins, or bearings to corrode or stick . . . no jumpers to break. You install them . . . and forget them!

No contact maintenance . . . Allen-Bradley patented silver alloy contacts never need cleaning, filing, or dressing.

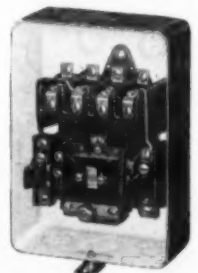
Dependable overload relays . . . Allen-Bradley thermal relays are dependable and remain accurate in their operation, even after long service.

The Allen-Bradley trademark stands for millions of trouble free operations.

Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wis.

BULLETIN 709 SOLENOID STARTER

Bulletin 709 Solenoid Starter for automatic across-the-line starting of squirrel cage motors. These starters are built in eight sizes, having a maximum rating of 300 hp, 208-220 v; 600 hp, 440-550 v. Dependable relays provide accurate overload protection. No voltage protection. White interiors and ample space for ease of wiring. Size 1 starter shown.



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Finest Food Stores!*



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All Purpose Case

... ONE OF 62 DIFFERENT
BALLY MODELS and SIZES

Bally

REFRIGERATED DISPLAY CASES
Bally Case and Cooler Co., Bally, Pa.

ALLEN-BRADLEY SOLENOID MOTOR CONTROLS

What's New

When requesting further information on new products, please use "Information Center" form.

Beer Dispenser Gives Small Tavern Complete System

—KEY NO. A-130—

CLEVELAND—Superflow Mfg. Co. is introducing an addition to its line of draft beer dispensing equipment, the Superflow "Colt" model, that will afford even the smallest operator with a complete system, reports Ray Kromer, president of Superflow.

The new model has the automatic pressure control which is incorporated in the previously introduced larger Superflow system, and is also featured by a simplified refrigeration application that Kromer claims permits complete cooling of the keg and the beer without use of pre-coolers or refrigeration of the lines with refrigerant or circulating water.

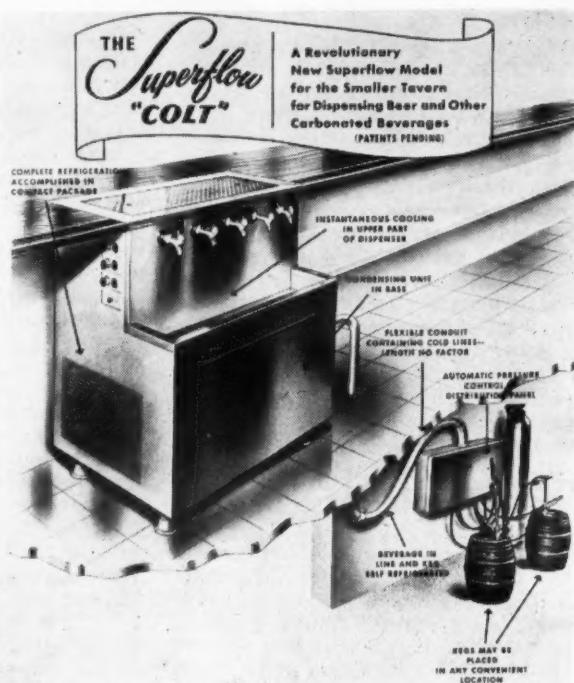
Design of the system is such that it offers a minimum of service problems, Kromer says, but at the same time it is readily understandable by

the service engineer.

Capacity is such that the system will cool and dispense up to six halves at one time, and the kegs may be placed at any distance from the

self-contained dispensing unit on the same level, or on the floor above or below. Extreme compactness and simplicity of operation are featured.

Kromer was a refrigeration contractor in Cleveland for a number of years prior to World War II, specializing in beer cooling applications. During World War II he was Director of the National Refrigeration Service Council, and Consultant to the War Manpower Commission.



Kelvinator Adds 12-Cu. Ft. Frozen Food Cabinet

—KEY NO. A-131—

DETROIT—Newest Kelvinator frozen food merchandiser is model KM-12, a 12-cu. ft. open-top chest-type designed for self-service, with an illuminated superstructure suitable for displaying signs or dummy packages, it was announced by H. C. Patterson, Kelvinator commercial sales manager.

The KM-12 will store more than 400 average 12-oz. packages of frozen food in a cabinet that is 54 in. long and 30 1/2 in. wide. The cabinet stands 34 1/4 in. high, including the superstructure, the height is 52 1/2 in.

For constant low temperature, refrigeration coils are mounted on all four walls, in the three transverse dividers, and under the top at the rear.

At either end of the cabinet are stainless steel draft-guards, equipped with holders for serve-self insulated bags or food-promotional literature. Casters are available as an accessory for stores where frequent changes in the cabinet location are desirable.

Superstructure lighting also illu-



minates the food packages in the cabinet in order to take full advantage of the sales appeal of packers' labels and to make selection easy. The sealed Polarsphere mechanism is protected by the manufacturer's five-year warranty.

The new "12" is a companion model to Kelvinator's KM-6, a 6-cu. ft. counter-mounted merchandiser with room for 192 average packages in a cabinet 39 in. long, 23 1/4 in. wide, and 48 1/2 in. tall, including superstructure.

'Cook-Nook' Combines Table, Stove, Benches



—KEY NO. A-132—

ST. LOUIS—Called "Cook-Nook," a combination kitchen utility table and two-burner electric stove, which comes with two upholstered benches, has been developed by Fred Medart Products, Inc. here, for use in limited quarters.

Measuring 40 in. by 25 in. by 30 in. high, the all-steel table has a porcelain top trimmed in black, a divided cutlery drawer, and tubular, chrome-plated legs.

The stove, which is embedded in

the table, becomes available for cooking or warming food by sliding back a portion of the table surface. The Tuttle & Kift Monotube heating units are rated at 1,100 watts, 115-120 volts. Electrical units are UL-approved.

Seating four people, the benches measure 17 1/2 in. by 14 in. and are upholstered with Tuftex padding and covered with Duran. Chromium-plated slides are provided between table legs so the benches may be stored off the floor when not in use.

According to the manufacturer, the Cook-Nook occupies a space of only a little over 6 sq. ft.

Sold through retail, department, and furniture stores, the item is distributed exclusively by Winston-Woods, Inc., Chicago. It is manufactured to retail for "just under \$80," the distributor said.

Refrigerator Accessory Made for Orange Juice



—KEY NO. A-133—

NEW YORK CITY—A new refrigerator accessory for orange juice has been introduced by Dr. Peter Schlumbohm here, manufacturer of "Fahrenheit" products.

Called "Orangeaire," it is an extruded aluminum beaker of approximately 40-oz. capacity. The seamless container is polished on the outside and has a plastic cork stopper.

Measuring 11 1/2 in. by 4 in. overall, the Orangeaire is calibrated for diluting the frozen concentrate. It is said to aerate the drink and thereby improve the taste.

The beaker, which can double as a cocktail shaker, is priced at \$9.50.

3 wonderful, new



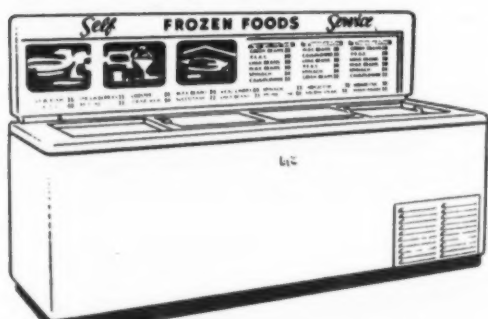
DISPLAY CASES

By
BTC

SMART-LOOKING 16 Cubic Foot Display Case. Model DC-16. 76" x 28" floor space. With or without superstructure.



COMPACT 10 Cubic Foot Display Case. Model DC-10. 55 1/2" x 28" floor space. With or without superstructure.



ROOMY 22 1/2 Cubic Foot Display Case. Model DC-23. 96 1/2" x 28" floor space. With or without superstructure.

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Roomier than ever... thanks to BTC's vapor-sealed insulation that lets them hold lots more food in lots less space. What's more, they have all the famous BTC features—heavy-gauge Bonderized steel cabinet, brilliant white baked enamel finish, capillary expansion, lateral plate evaporator, plus a five-year warranty against food spoilage and defective operation of the compressor unit.

Get the full facts... on these wonderful new cases—write Brewer-Titchener today!

BTC

DISPLAY CASES

THE BREWER-TITCHENER CORPORATION, Binghamton, New York

Information Center

Here is an easy, convenient way for you to get more information on "What's New" items and on products advertised in this issue of AIR CONDITIONING & REFRIGERATION NEWS. New literature and catalogs available to readers can also be obtained by using the form below. Your requests for this information will be forwarded promptly by the News.

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What Was New At the Markets

Many Lines Bowed In Before Marts Opened

Most manufacturers of refrigerators, home freezers, and other appliances had introduced new lines before the marts opened, or introduced them to coincide with the openings (as reported in the Jan. 8 issue), or will announce at a later date (as in the case of Frigidaire). However, the following is a resume of some of the more or less "what's new" items at the marts.

24-Cu. Ft. Amana Freezer In 18-Ft. Model Shell

Big news from Amana Refrigeration, Inc., is the addition to the line of a 24-cu. ft. upright freezer, built in the same cabinet shell as the 18-cu. ft. model, and capable of being moved through a standard 29-in. door.

Additional storage space is obtained by the creation of deeper top and bottom storage spaces, and through the use of a "blister" on the back, which makes the cabinet 1-in. deeper over-all than the 18-cu. ft. model. If necessary for moving purposes, however, the blister can be removed. The 24-cu. ft. model is powered by a 1/2-hp. condensing unit.

Amana does 78% of its freezer volume in upright models and the average price on its freezers in the past year has been \$530, yet surveys of consumer preferences have indicated that prospective purchasers want larger upright models, declared E. L. Hinchliff, Amana sales manager. That influenced the decision to introduce the 24-cu. ft. model, he declared.

In the new model 24 three horizontal freezer shelves provide a total of 22.4 sq. ft. of contact or "sharp freezing" area. Freezer plates are also mounted in the top and lower part of the compartment. New low temperature type Fiberglas insulation completely surrounds the interior compartment. Plastic breaker strips and moulded plastic interior door with extruded rubber gasket provides positive seal. A temperature indicator is located on inside of the door.

I-H Freezers Have New 'Dry Cabinet' Feature

International Harvester, which had introduced its household refrigerator line previously, revealed its 1951 line of home freezers at the American Furniture Mart.

The line consists of the following:

Model	Size	Price
70	7.0 cu. ft.	\$269.95
111	11.1 cu. ft.	434.95
158	15.8 cu. ft.	524.95

One of the prime construction features in the new I-H freezer line is the "Dri-Wall" cabinet construction, designed to do away with excessive condensation of moisture on the outside of the freezer. This is accomplished by putting a part (but not all) of the condenser surface around the insulated shell. Tests have shown

that this stops excessive moisture formation on the cabinet exterior even in high humidity areas.

Another design feature is the fact that all five interior surfaces are refrigerated, with extra coils in the four walls and bottom assuring sub-zero freezing surfaces at these points.

The two larger models have temperature indicator on lid; "Diffuse-O-Lite"; illuminated, protected temperature control, and built-in tumbler lock. The model 158 also has the "Zero-Larm" bell to warn of a temperature rise.

Door Shelves In L & H Deluxe '51 Refrigerator

A. J. Lindemann & Hoverson Co. here, manufacturer of Electro-Host home appliances, has announced its new 1951 refrigerator line, which includes a deluxe model with door shelves as regular equipment.

Among features found in the completely redesigned line are full-length cold compartments and full-length doors, 13-position adjustable shelves, across-the-top freezers, and full-width chiller and crisper drawers.

Available in an assortment of capacities and equipment, some models have full-length cold and others are provided with unrefrigerated storage bins below.

New hardware, convenient shelf arrangement, and easy accessibility to contents are featured in all models, the company said.

Kalamazoo To Have 14-Cu. Ft. Refrigerator

Starting out on its 50th Jubilee Year, Kalamazoo Stove & Furnace Co. showed a refrigerator line which included a 14-cu. ft. model which will have 2.8 cu. ft. of frozen food storage in an across-the-top freezer.

This 14-cu. ft. model, which will provide "storage space for all home refrigerated food and frozen food needs," will probably be ready for March deliveries, reported R. E. Mercer, sales manager.

Other refrigerator models include a deluxe 10-cu. ft. model, and a standard 10-cu. ft. and standard 9-cu. ft. models.

The 14-cu. ft. model and the deluxe 10 will have such features as automatic defrosting, a door storage section, and butter conditioning compartment.

Presteline Introduces An Aluminum Range

Featured in the Presteline booth was the 10-cu. ft. household refrigerator. This model has adjustable shelves, contains a built-in Steri-Control germicidal lamp which operates each time the compressor turns on, has three cold plates which contain jointless copper enclosed coils, and ample dry storage capacity.

Also of particular interest to appliance buyers in the Presteline booth was its new aluminum electric range. This four-burner, double-oven range is unique in the fact that it has a stainless steel top and a copper anodized front. A pressure cooker in the deep well cooker is part of the standard equipment of this new range. Although this range is not yet in production, company officials expect to have a limited number ready for its distributors by April.

All of the Presteline "400" series refrigerators are available on a custom order basis in various colors, including porcelain blue, citron yellow, sandalwood brown, willow green, stone gray, carnation pink, and black.

Revco Freezers Have Improved Accessories

A number of accessory refinements marked the 1951 Revco line of home freezers, shown at the Merchandise Mart. The line is comprised of the same number and size of models as were shown last year.

Among the new features and refinements are saddle type hardware, wide-opening balanced lid, a "catch-type" method of locking the cabinet which eliminates the use of keys, and improved interior arrangement.



DOOR SHELVES are incorporated in this deluxe model in Lindemann & Hoverson's new line of 1951 refrigerators. The redesigned refrigerator line includes such other selling features as full-length doors, and across-the-top freezers, as well as adjustable shelves.



KEY CHILL CHEST MODEL: This 15-cu. ft. Chill Chest freezer is the basic model in the Revco, Inc. line of three units. The others are an 8 and a 23-cu. ft. chest. Increased freezing efficiency and a new style latch are the major improvements for 1951.

General Shows New 44-In. High Model

General Air Conditioning Corp. of Los Angeles featured its "General Chef," a combination 4-cu. ft. refrigerator and four gas burner style range.

This model is adjustable for either natural or bottled gas. In addition, General Air Conditioning Corp. showed its new 4 1/2-cu. ft. all-steel construction refrigerator. This unit is only 44 in. high, 23 in. wide, and 21 1/4 in. deep and includes an ample vegetable bin.

Other models on display were the combination two-burner electric range and 4-cu. ft. refrigerator, a 4-cu. ft. refrigerator with oak or mahogany enamel natural grain finish, and a 4-cu. ft. refrigerator with an acid-proof Formica top.

Ben-Hur and Sanitary Lines In Production

Ben-Hur Mfg. Co. of Milwaukee showed its complete line of 1951 models home and farm freezers. Sanitary Refrigerator Co. displayed its 1951 models of household refrigerators plus three models of home freezers. According to Sanitary Refrigerator Co. officials, the plant is now back in production after the fire which destroyed the office and warehouse several weeks ago.

King Refrigerator Has New 5-Model Line

Five different models of electric refrigerators were displayed by King Refrigerator Co. The three deluxe models of the King line include 10, 8, and 7-cu. ft. refrigerators with an across-the-top freezer chest. The two other models shown were 8 and 7-cu. ft. models with the U-type evaporator.

ABC Washer Spotlights Rinsing, Agitation

Featured by Altorfer Bros. Co. was the new A-B-C-O-Matic automatic washer, which features "centric agitation."

This provides continuous washing action, and distributes clothes evenly, no matter how they are placed in the washer, it is stated.

Other features include 3-step rinsing: (1) a spray of clean water covers the clothes while agitator action loosens dirt and scum; (2) after centric agitation stops, water continues to flow, overflowing tub for 1/2 minute; (3) centric agitation starts again, splashing water up and out of the tub.

Other features include "Spin-Aire" drying; signal light that tells when washing cycle has been completed; gearless automatic transmission; and automatic leveling.

'Preway' Electric Range Line Is Introduced

Prentiss-Wabers Co. introduced its new "Preway" line of electric ranges, which was distinguished by a top model with glass oven door and central grouping of controls, clock, and timer on the back splash; and another model with the distinction of having the controls located on top of the back splash.



PLENTY OF ROOM is an outstanding characteristic of these two new Kelvinator appliances. The 11-cu. ft. refrigerator at left occupies no more floor area than prewar 6-ft. models and offers "cold-clear-to-the-floor." Six pies and a giant turkey can be cooked simultaneously in the new double-oven range.

'Rocket' Styling Features New Thor Washers

Two new wringer-type washers featuring "Rocket" styling and one-piece skirts and legs made of molded Fiberglas were introduced by Thor Corp.

A third new feature of the machines is a "Loadmaster" control panel mounted on the skirt front. The new models, both having 9-lb. capacity, are known as the V-4 and the V-3. Model V-4 has a new "Miracle Touch Wringer" of Thor design. It is enclosed in a streamlined housing of die-cast aluminum and is equipped with functional, fingertip control levers. Model V-3 is equipped with a streamlined Lovell wringer with adjustable tension control.

M. R. Wilson, Thor's general sales manager, said shipments of the model V-3 will begin in approximately 60 days. Because of restrictions on the use of aluminum, the V-4 will not be available until sometime later. Prices of the two models have not yet been established, but will be as much in line as possible with 1950 wringer models, Wilson said.

Speed Queen Washer Prices Up

RIPON, Wis.—A \$5 increase on all Speed Queen washer models except the low priced 448 was announced recently by Speed Queen, Inc. The increase became effective on all orders booked after Dec. 14.

Tenney Departmentalizes Engineering Operations To Effect Closer Control

NEWARK, N. J.—In the interests of increased efficiency and closer control by executives over operations, Tenney Engineering, Inc., here, has completely departmentalized its engineering operations.

Gordon C. Schultze, who heads the application engineering department, is responsible for clarification of specifications and questionnaires. Other specific duties include correlation of written and verbal promises to customers in the form of addenda, layout of control system, and selection of component parts in the electrical system.

Thomas L. Warren is to assist in laying out air circulation systems calculation of coil surface, c.f.m., face velocities, etc.

Kenneth Fagarlund, when not engaged in field engineering work, will work in either the application or design engineering departments as required.

Paul Moskowitz is to head up the activities of the purchasing engineering department. These will include placing all orders as specified by application and design engineering, expediting material whenever necessary to avoid shop delays, and maintaining stock records of all construction materials.

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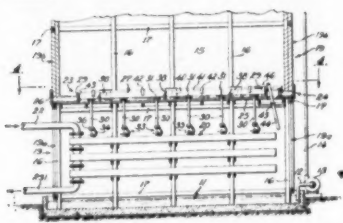
Baker

AIR CONDITIONING and REFRIGERATION

PATENTS

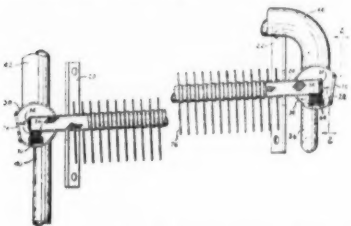
Week of Aug. 8

2,517,639. COOLING TOWER WATER DISTRIBUTION SYSTEM. James G. De Flon, Los Angeles, Calif., assignor to The Fluor Corp., Ltd., Los Angeles, Calif., a corporation of California. Application Dec. 24, 1946, Serial No. 718,150. 3 Claims. (Cl. 261-110.)



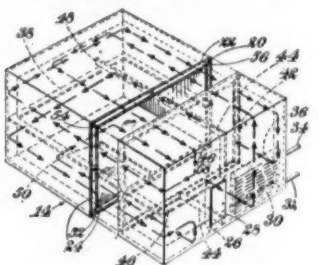
1. In a water cooling tower, a deck structure forming an outer water collecting basin and an elongated distributing basin within and communicable with said outer basin, overflow pipes extending through the bottom of said distributing basin at longitudinally spaced intervals therein, a plurality of water inlet weirs spaced longitudinally in a side wall of the distributing basin, a series of slide valves cooperable with said weirs, and means for simultaneously operating the valves to control the delivery of water from said outer basin to the distributing basin and for varying the water head above said down pipes.

2,517,654. REFRIGERATING APPARATUS. Richard S. Gaugler, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application May 17, 1946, Serial No. 670,618. 6 Claims. (Cl. 261-99.)



1. Heat transfer apparatus including a plurality of tubes, substantially horizontal headers connecting the tubes at the opposite ends thereof, capillary means extending continuously within the tubes from one header to the other header, a unitary horizontal capillary conduit means extending horizontally within one header and contacting one end of each of the capillary means provided within the tubes, and means for feeding a liquid to said capillary conduit means to distribute the liquid flow to the individual capillary means within the tubes.

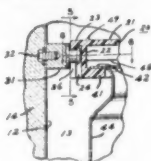
2,517,686. REFRIGERATING APPARATUS FOR THE COLD STORAGE OF GOODS. Ernest Edmund Larkin, Pinner, England, assignor to Union Cold Storage Co., Ltd., London, England, a British company. Application June 17, 1946, Serial No. 677,353. 3 Claims. (Cl. 62-102.)



1. Refrigerating and cold storage apparatus comprising an outer casing having thermally insulated walls, an inner chamber for accommodating goods to be stored supported in the outer casing so as to form therein a sealed cooling space surrounding substantially the entire area of the top, bottom, side and end walls of the inner chamber, an air-tight cooling device and air-circulating means arranged in the sealed cooling space for circulating cold air therein over all said walls of the inner chamber and means enabling goods to be stored in, and removed from the inner chamber while retaining the cooling space sealed and thereby shut off from the atmosphere or from any other space, which sealed cooling space surrounding the inner chamber is

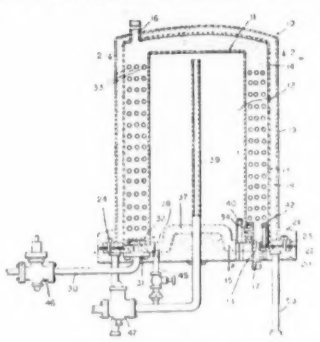
spaced away from the inner face of the walls of the outer casing to provide a relatively large storage space adapted for the storage of goods therein and removal of goods therefrom.

2,517,725. REFRIGERATING APPARATUS. Edmund F. Schweller, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Sept. 25, 1946, Serial No. 51,267. 1 Claim. (Cl. 312-150.)



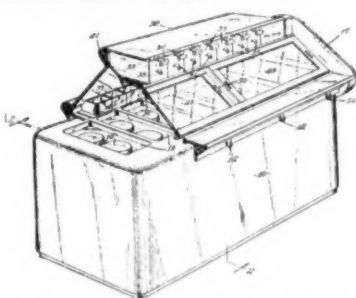
A one-piece molded element adapted to be mounted in the storage compartment of a refrigerator cabinet including a closed rectangular portion extending continuously between the peripheral edges of the element and forming a food supporting shelf in the storage compartment, said element having an integral depending flange extending along each of two opposed edges thereof and provided with an integral ledge directed inwardly to form a guide for receiving and slidably supporting an open-top receptacle in close proximity to said closed portion whereby said portion covers said receptacle and together therewith forms a hydrator within said compartment, and said element also having an integral depending flange extending along the front edge of the shelf.

2,517,773. SIRUP COOLER. William E. Doughty, Detroit, Mich., assignor to James Verner Co., Detroit, Mich., a corporation of Michigan. Application June 17, 1946, Serial No. 677,181. 12 Claims. (Cl. 62-141.)



1. A cooler comprising spaced, nested inner and outer domes providing a space therebetween for liquid to be cooled, a refrigerant coil in said space, a valve controlling flow of refrigerant through said coil, a bottom closure plate, said plate having a relatively short central domed portion defining with the lower edge of said inner dome an annular well for liquid refrigerant, and temperature responsive means in said well effective to control said valve.

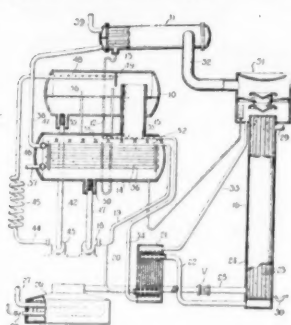
2,518,134. DETACHABLE COVER AND SERVICE BAR FOR FROZEN FOODS CONTAINERS. Walter S. Fredenhagen and Mark S. Schmidt, Naperville, Ill. Application Dec. 18, 1946, Serial No. 717,024. 4 Claims. (Cl. 62-89.5.)



1. A detachable display and service bar unit for a frozen foods container of the open top type comprising means defining a frame having portions adapted to rest on said container in sealing engagement therewith including means for preventing relative lateral movement between said unit and said container, a service bar disposed along the top of said unit and supported by said frame, a transparent

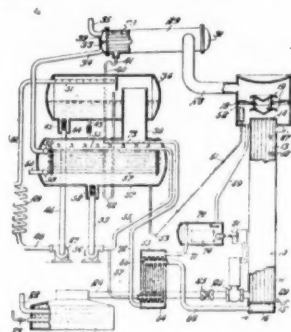
wall positioned between said bar and a portion of said frame to permit customers to view the contents of said container, a plurality of dispensing devices disposed beneath said service bar and supported by said frame, and means for closing the remainder of said unit whereby said unit when not in use acts as a cover for said container.

2,518,180. ABSORPTION REFRIGERATING SYSTEM WITH ABSORBENT CONCENTRATION CONTROL. John G. Reid, Jr., Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Dec. 2, 1944, Serial No. 566,290. 10 Claims. (Cl. 62-119.)



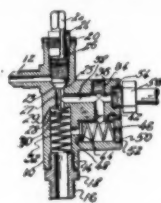
1. In an absorption refrigeration system having an evaporator and an absorber, a generator and a condenser constructed and arranged for supplying liquid refrigerant to said evaporator at a rate in excess of the rate of evaporation in the evaporator, a local circuit for recirculating the excess liquid refrigerant through the evaporator, and a device for limiting the amount of said excess liquid refrigerant in the evaporator while permitting variation in pressure in the system with variation in load conditions.

2,518,202. VACUUM TYPE WATER ABSORPTION REFRIGERATING SYSTEM. Albert E. Thomas, deceased, late of Evansville, Ind., by The National City Bank, administrator, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Oct. 25, 1944, Serial No. 560,214. 16 Claims. (Cl. 62-5.)



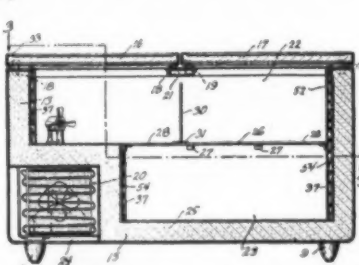
1. An absorption refrigeration system having an absorber, a generator comprising a vapor liquid lift, a heat exchanger, a vapor liquefier and evaporator, said absorber being connected in an absorption liquid circuit with said generator and said heat exchanger, said circuit having a branch by-passing said generator, and a liquid pump for causing flow in said branch, said liquefier and said evaporator being connected in a refrigerant circuit between said generator and absorber.

2,518,212. REFRIGERATION CONTROL VALVE. Keith E. Wilson, Los Angeles, Calif. Application May 16, 1946, Serial No. 670,091. 2 Claims. (Cl. 62-115.)



1. In an apparatus of the type described including a compressor condenser, evaporator means and receiving tank for refrigerant connected in a closed circuit, the improvement comprising a valve assembly means including a supply inlet and the receiving tank connected to said inlet, said valve assembly means including a relief valve controlling the supply to said receiving tank and a check valve controlling the supply from said receiving tank to said relief valve, said valve assembly means being located in the circuit between the outlet of the condenser and the inlet to the evaporator means, a capillary tube between said valve and said evaporator, said valve adapted to compensate for pressure change in said circuit to permit normal flow of the refrigerant under normal pressure or by-pass refrigerant to said receiving tank upon rise of pressure through said relief valve and return said refrigerant to said circuit through said check valve upon reduction in pressure.

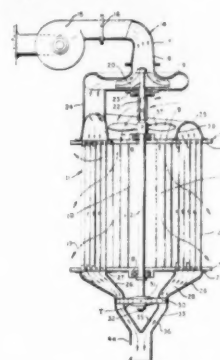
2,518,242. REFRIGERATOR HAVING AN AIR PUMP CIRCUIT. Alexander F. McMahon, Oak Park, Ill., assignor to The Bastian-Blessing Co., Chicago, Ill., a corporation of Illinois. Application April 5, 1944, Serial No. 529,626. 9 Claims. (Cl. 62-102.)



1. A refrigerating cabinet having a quick freezing chamber provided with a door opening, a door for said opening, a perforate food basket detachably attached to said door and movable with said door to a position within said cham-

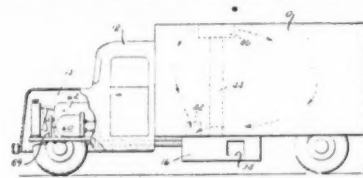
ber for occupying substantially all the space in the chamber when the door is closed except a rear corner space and movable with the door to a position affording access to the container when the door is opened, means within said corner for moving cold air under forced circulation through said basket to freeze the contents thereof and means for maintaining the temperature of said cooling chamber materially below the freezing point.

2,518,246. EXPANSION MEANS FOR COOLING AN AIRCRAFT CABIN. Charles W. Morris, Los Angeles, Calif., assignor to The Garrett Corp., Alhambra, Calif., a corporation of California. Application July 20, 1945, Serial No. 606,179. 11 Claims. (Cl. 62-136.)



1. In an air cooler, the combination of: a plurality of tubes arranged in co-extending relation so as to surround a central space; a wall closing one end of said space; means for delivering coolant air into the other end of said space so that it will flow out through the spaces between said tubes; means for delivering air to be cooled into the front ends of said tubes; and turbine means at the rear ends of said tubes to receive the air which has been cooled in passing through said tubes, said cooled air driving said turbine.

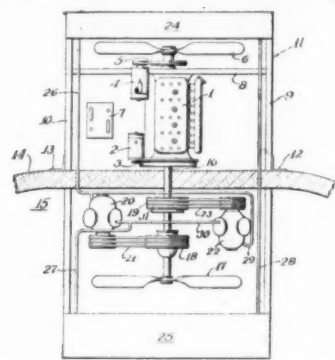
2,518,316. CONTROL FOR REFRIGERATED TRUCKS. Charles F. Henney, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application March 23, 1946, Serial No. 656,754. 7 Claims. (Cl. 62-4.)



1. In combination, a vehicle having means forming a food storage compartment therein and a closed refrigerating

system carried thereby, a prime mover for driving said vehicle, a hydraulic pump operated by said prime mover, means for maintaining the output of said pump substantially constant, a variable speed hydraulic motor operatively connected to said pump, said refrigerating system including a compressor, a condenser and an evaporator for cooling said food storage compartment, torque transmitting means between said motor and said compressor, and means operable in response to temperatures within said food compartment and acting directly on said hydraulic motor for varying the speed of operation thereof in accordance with refrigeration requirements of said evaporator.

2,518,284. MULTIPLE COMPRESSOR TRUCK REFRIGERATION UNIT. Adna E. Clark, Evansville, Ind., assignor to International Harvester Co., a corporation of New Jersey. Application Dec. 4, 1948, Serial No. 63,494. 2 Claims. (Cl. 62-4.)



1. In refrigeration apparatus of the class described, in combination: a compressor, a condenser, and an evaporator connected in a closed circuit; engine means for driving said compressor; said engine having a drive shaft extending from opposite ends thereof with one end of said shaft terminating proximate the condenser and being provided with a fan for circulating air over the condenser while the opposite end of said shaft terminates proximate the evaporator and is provided with a fan for circulating air over said evaporator, said shaft having driving means securely positioned thereon, intermediate the evaporator fan and the engine, that is adapted for engaging said compressor in driving relation with said engine; means including an auxiliary compressor adapted to operate in parallel with the compressor of the refrigeration apparatus for increasing the refrigeration capacity thereof; and having said engine shaft further provided with clutch means positioned thereon intermediate said evaporator fan and said engine for engaging and disengaging said auxiliary compressor in driving relation with said engine.

(To Be Continued)

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

AVAILABLE JAN. 1st. Present position as chief engineer consulting firm, involving entire responsibility for air conditioning, refrigeration and heating design, layout and construction supervision, over two million dollars worth of work yearly; terminated due to dissolution of firm. Desire connection with architect-engineer or industrial organization in Southeast. BOX 3645, Air Conditioning & Refrigeration News.

FIELD SERVICE representative or field maintenance engineer, 42 years old. 20 years experience all phases, any tonnage, all refrigerants, available now. BOX 3648, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SALESMAN FOR Hussmann distributor in San Diego, California. Must be experienced in food store layout and equipment. Salary, expenses and bonus. This is an excellent opportunity for the right man. Must have proven record and best references, none other need apply. WRIGHT REFRIGERATION, INC., 4025 Pacific Highway, San Diego, California.

FIELD SERVICE Representative wanted by large Midwest appliance manufacturer. Former distributor service manager or person with field service experience. Free to travel small territories. This is an excellent opportunity with unlimited possibilities for advancement. Write, stating complete history, references, background and experience. Replies held confidential. BOX 3636, Air Conditioning & Refrigeration News.

ONE OF leading commercial refrigeration equipment manufacturers has opening in Chicago for thoroughly experienced man to sell dealers, national chains, wholesale grocers, ice cream manufacturers. Substantial salary, overtime, expenses and exceptional opportunity for right man. Our employees know of this ad. Give full information in first letter. Confidential. BOX 3649, Air Conditioning & Refrigeration News.

CENTRAL WASHINGTON commercial refrigeration and air conditioning firm needs qualified working service manager. Initiative and leadership qualifications to work with four man service crew, purchasing, receiving parts and equipment, timekeeping, and other requirements necessary to a well established going service department. Salary, profit sharing or time arrangements may be made to commensurate abilities. All replies confidential. References required. BOX 3651, Air Conditioning & Refrigeration News.

NATIONALLY KNOWN concern needs plant engineer for its Tennessee plant. Must be experienced in designing and the installation of new machines and equipment as well as the maintenance, repair and improvement of our present tools, equipment and machines. Prefer applicant with at least 5 years experience as a plant engineer with a trade of a tool maker. State in first letter synopsis of experience, salary expected and how soon available. BOX 3652, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

WHOLESALE SEALED unit rebuilding. We will rebuild and convert your unit to "Freon-12." One year guarantee. Write for price list and shipping instructions. ADVANCE REFRIGERATION COMPANY, 829 East McNichols Road, Detroit 3, Mich.

REFRIGERATOR DOORS. 3'6" by 6'6" double batten auto close doors complete with removable track heads for a 7'2" track. 1 1/4" corkboard insulation. 16 gauge metal clad. Brand new. \$95.00 each. Freight prepaid in U.S. Door height will be altered for anything up to an 11 ft. 2 in. track for \$15.00 additional. BIMEL CO., Cincinnati, Ohio.

COMPRESSOR BODIES, brand new; model #19, good up to 1-HP. @ \$41. each; includes flywheel and one service valve. Write for circular. MANN REFRIGERATION SUPPLY CO., 15 Astor Place, NYC, GRamercy 3-8000.

1/2-HP, open type units, less receiver, less motor, brand new in original crates, specially priced at \$27.95 each. NEW YORK REFRIGERATION CO., 35 East Fourth Street, New York 3, N. Y.

BUSINESS OPPORTUNITIES

ENGLISH MANUFACTURERS of domestic refrigerators either complete or hermetic and absorption type units and evaporators separately for local assembly, wishes to contact lively agents in all U.S.A. states. Make use of devaluation while it lasts. Airmail at once for free lists and particulars. LONGFORD ENGINEERING CO., LTD., Dept. A.C., Bognor Regis, Sussex, England.

PROFITABLE COMMERCIAL refrigeration, air conditioning and heating business, in Northwestern Illinois city of 25,000 population; no competition, franchised dealer, nationally known equipment, clean stock, new trucks, equipped shop, long term lease, reasonable rent; owner has other interests; inquiries confidential; capital required about \$30,000. Write BOX 3647, Air Conditioning & Refrigeration News.

FOR SALE: Commercial refrigeration business in middle Georgia. Selling because of ill health. Lines include air conditioning, heating systems, market equipment, supplies. Franchised by manufacturers of nationally advertised products. A profitable business established over 25 years. For further information write BOX 3650, Air Conditioning & Refrigeration News.

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1-15-51

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid set is made.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Watertown Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases.

Description	Quantity	Invitation No.	Opening Date
Commanding Officer, Marietta TC Depot, Marietta, Pa. Attn.: Central Procurement Agency			
Fittings, Brass and Copper	10,980 ea	229	29 Jan 51
Gauges, Pressure, Brass	25 ea	233	31 Jan 51
Bourdon Spring			
Valves, Brass and Steel	423 ea	233	31 Jan 51
Commanding General, ORD Tank Auto Center, 1501 Beard St., Detroit, Mich.			
Compressor Valve Spring	100 ea	2447	17 Jan 51
Valve Multiple Shut Off	8 ea	2487	26 Jan 51
Various Types of Compressors	Various Qty	2299	24 Jan 51
Aviation Supply Office, 700 Robbins Ave., Philadelphia, Pa.			
Drain Brass Male Thread	2,750 ea	H53414	19 Jan 51
To Be Equal to Weatherhead Co. Part No. Various Sizes			
Shut Off Brass To Be Equal To Weatherhead Co. Part No.	250 ea	H53414	19 Jan 51
Officer in Charge, Navy Purchasing Office, Naval Supply Center, Norfolk, Va.			
Roasting Ovens, Six Pan, Electric, All Purpose	6 ea	9489	19 Jan 51
Commanding Officer, Naval Supply Depot, Mechanicsburg, Pa., Attn.: Code 78B			
Misc. Elec. Repair Parts Mfgd. by Hotpoint, Inc.	465 ea	765161	22 Jan 51

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Chief, Supply Section, Public Buildings Service, General Services Administration, Washington 25, D. C.			
Replacement Parts for York Enclosed Ammonia Compressor	Misc	725	1-24-51
Replacement Parts for Carrier Air Conditioning Unit, Model 50 M	Misc	723	1-22-51
Replacement Parts for Chrysler Airtemp Radial Compressor	Misc	724	1-23-51
Chief, Purchase Division, Federal Supply Service, General Services Administration, Denver, Colo.			
Electric Griddle, Hotpoint Model, G48 or Equal	1 ea		
Electric Range, Hotpoint Model R200 or Equal	1 ea	2404	1-20-51
Washing Machine, Family Size, Gasoline Engine	8 ea	2403	1-19-51
Walk-In Cooling Room	1 ea	2406	1-20-51

U. S. DEPARTMENT OF COMMERCE

Description	Quantity	Reference No.	App. Bid Date
Chief, Procurement Section, National Bureau of Standards, 620 11th St., N. W., Washington 25, D. C.			
Coupling, Female	36 ea	B-2-1306-51	1-10-51
Valves	22 ea	B-2-1306-51	1-10-51
Fittings	244 ea	B-2-1306-51	1-10-51

TENNESSEE VALLEY AUTHORITY

Description	Quantity	Reference No.	App. Bid Date
Chief, Materials Branch, Tennessee Valley Authority, Chattanooga, Tenn.			
Copper Tubing	6,800 ft	643951	1-12-51

CONTRACTS AWARDED AS OF JAN. 3, 1951

Description	Quantity	Dollar Value	Contractor and Address
Chicago Quartermaster Depot, U. S. Army, 1819 West Pershing Rd., Chicago 9, Ill.			
Cabinet, Fresh Frozen Fruit & Vegetable	99	38,555.00	American Refrig. Co., Hopkins, Minn.
Navy Department District Public Works Office and Officer-In-Charge of Construction, Sixth Naval District, P. O. Box 365, Naval Base, S. C.			
Rehabilitation of cold storage building No. 161, Naval Air Station, Jacksonville, Fla.		85,658.00	A. D. Newkirk & Son, P. O. Box 5281, Jacksonville 7, Fla.

3 20-Ton Units To Cool 54-Family Structure

MIAMI BEACH, Fla.—The contract for the air conditioning installation in the new 54-family Broadwater Beach Apartments, under construction at 6490, 6500, and 6510 Collins Ave., here, has been awarded to the Airko Air Conditioning Co., of Miami Beach, an authorized dealer for United States Air Conditioning Corp. in Dade county.

Situated directly opposite the Monte Carlo hotel, the new apartments will comprise three two-story buildings, each containing 18 suites. Designed by August Swartz, Miami architect, the development is being erected by Jules Bloch, general contractor, of Miami Beach. The apartments are to be completed in January.

Air conditioning will be provided by three factory-built UsAirco 20-ton refrigerated Kooler-aire units, adapted to each building as a central plant system.

Remote manual controls, allowing for individual control in individual rooms, will be a feature.

New American Kitchens Outlet

NEW YORK CITY—A new American Kitchens distributing outlet has been established at 1114 First Ave., here, as a direct factory branch.

Appliance Dealer Opens 2nd Store In Charlotte

CHARLOTTE, N. C.—The State Home Equipment Co., handling such nationally advertised lines as Admiral, Westinghouse, Hallicrafters, Motorola, Bendix, and Emerson, recently opened an additional store at 403 S. Mint St.

The company's main store is located at 115 W. Second St.

According to H. Greene, president of the firm, the new location will be used for a general mercantile headquarters and the West Second St. store will be given to the displaying of various electrical appliances.

Denver Distributor Appoints Jordan Dept. Sales Manager

DENVER—The Auto Equipment Co., major appliance distributorship here, has announced the appointment of Frank B. Jordan as sales manager of the firm's floor covering department.

For the past four years, Jordan has served as district sales manager in the Rocky Mountain area for the Paraffine Cos., Inc., manufacturer of Pabco floor covering. He has been affiliated with that company since 1936.

N. Y. Distributor Finishes Expansion, Modernization

ALBANY, N. Y.—RTA Distributors, Inc., Menands, announced it has completed enlarging and modernizing its showrooms and offices at 36 Broadway.

The firm has formed four new departments. Walter E. Fliesler has been appointed manager of RCA Victor radio, television, and parts department.

Hazen Hillyer, who was former product promotion manager for the Norge factory, has been appointed manager for Norge products; Newell Cross has been appointed manager of specialty appliances, and Herman Rasker is manager of the RCA Victor record department.

Ralph M. Barker has been appointed as general sales manager for all departments and Charles Levine is merchandise and promotion manager.

Harold Gabrilove, president, said the company's warehouse had been enlarged by 10,000 ft. and an auditorium had been built for dealer training meetings.

21-Story N. Y. Office Bldg. To Be Air Conditioned By Conduit System with Capacity of 1,240 Tons

NEW YORK CITY—A new 21-story \$9,000,000 office building now under construction by the Hegeman-Harris Co., general contractors, at 260 Madison Avenue will be air conditioned by the Conduit Weathermaster System of Carrier Corp., Carrier announced recently.

The new building will be the seventh office structure either completed or begun in Manhattan since the war to employ Carrier's revolutionary conduit system. By means of this system conditioned air is distributed under pressure from a few central stations through small, space-saving conduits.

Turbine driven compressors in the sub-basement, using New York City steam, and capable of producing 1,240 tons of refrigeration, will service the upper 20 stories of the structure. The street floor stores and bank area will later be equipped with individual air conditioning units.

A rooftop cooling tower will make possible the re-use of condenser

water, required by the city's conservation program.

The Carrier system is being furnished through Eugene J. Brandt & Co., Inc., heating and air conditioning contractors, for Hegeman-Harris Co., the general contractors. Sylvan Bien is the architect and Sears & Kopf the consulting engineers for mechanical work.

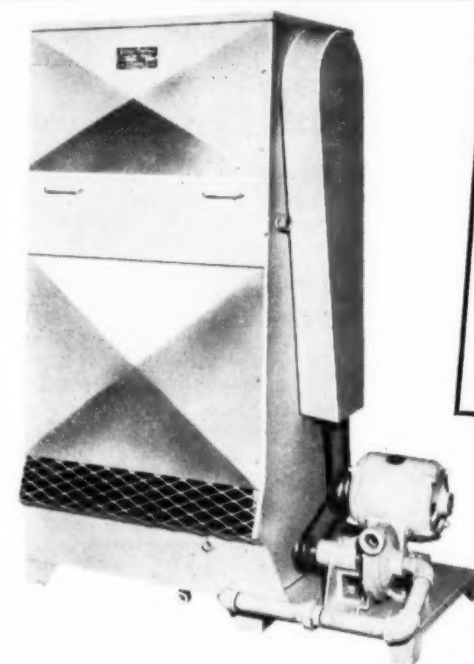
The building is being built by the 260 Madison Corp., of which Calmon Ginsberg is president. It is to occupy the west side of Madison Avenue, from 38th St. to 39th St., to a depth of 147 ft.

Admiral Retains Walker As Appliance Designer

CHICAGO—George W. Walker, noted Detroit industrial designer and stylist, has again been retained by Admiral Corp., Lee H. D. Baker, Admiral vice president in charge of the appliance division said recently. Baker added that Admiral's affiliation with the Walker concern had been interrupted for the past year due to conflicting contracts with other manufacturers.

Baker said that previous television and radio cabinets, which the Walker firm had designed in conjunction with Sam Adler, chief Admiral designer, had met with such wide public acceptance, that under the terms of the new agreement, they will work on Admiral appliances as well.

Larry Wilson, an associate of the Walker firm, has been named account executive.



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(See Ad, Page 22)

Lawson Indicates What's Ahead In '51--

(Concluded from Page 1, Column 2) derable reduction, others, who were less dependent on time selling, report less. In the over-all, my guess would be perhaps 25%.

"The reason I say guess, is that before 1942, sales in major appliances always declined seasonally in November and December. Since the war, shortages of supply kept fall business on a level with other seasons until 1949, when the steel strikes cut production below demand.

"Consequently, we have no recent year against which to measure the sales of the last two months accurately.

"The other controls are those that have been applied to materials. They vary as to the amount of cut requested in different materials. They vary as to the time they become effective.

FREQUENT CHANGES MAKE LAWS HARD TO UNDERSTAND

"In addition, the original orders have been amended frequently so that it is hard to determine, as of today, just what final effect they will have in the first three months of 1951. And more important, none of these orders either state or indicate the reduction to be applied after March.

"This may seem a confusing picture for me to bring you. But, gentlemen, it is the most accurate picture of the problem facing appliance manufacturers today.

"The men in charge of these control orders in Washington have called in representatives of our industry on one occasion and have given them time on several other occasions to present our problems.

BETTER MEN HEADING CONTROLS SETUP TODAY

"On the whole, I would say the men in charge of control orders are much better qualified for their jobs than were their inexperienced counterparts in 1942, and I feel they are trying their best to guide industry into the defense economy we are entering.

"Their only problem is that up to the present time, as far as we know, they have been given no definite program or set of plans to follow.

"With the appointment of C. E. Wilson to head our defense program, and with the knowledge that he has been given more powers than ever held by any man, except a wartime President, we do expect to see a definite program start to take shape during the first quarter of 1951.

PRODUCTION DROP MAY FORCE PRICES HIGHER

"Now that I am sure you know why I do not have the answers you want about the future, I will try to tell you what I think.

"First—I believe that in general, production of major appliances in the first quarter of 1951 will run from 20 to 25% under a like period last year. At the present time steel is still a most critical material, with such items as aluminum, nickel, zinc, rubber, and plastics also short because of demand or controls.

"There are reasons to believe that later on we may have more of these materials, in relation to our needs, and that copper will be the major controlling item. It is my opinion that we may see our production limited for a long time by the amount of copper available.

HOW PRESENT CONTROLS SYSTEM HURTS OUTPUT

"The manner in which material controls are now written will very probably reduce production, and consequently employment in our industry, more than would be necessary to save the same amount of critical material, if they were applied differently.

"As now written, controls apply to the fabricator of the material, instead of the end-product manufacturer.

"As a result, instead of being able to maintain higher production schedules by substituting available materials for critical items, many manufacturers will have their production limited to the supply of one essential part or component available from a controlled vendor.

"The electrical manufacturing industry has presented this situation to N.P.A. officials in several ways, but so far has not been able to get these orders amended to take this situation into consideration.

"Many people feel that within a

few months a controlled materials plan similar to that used in the last war will have to be put into effect.

"Under such a plan consumer goods manufacturers using critical materials would be told the quantities they could produce each quarter, in relation to some pre-determined base period, and then allocated materials necessary for such production.

"There are indications that if such plans are adopted, all cooling items will be considered together, and all refrigerators, both electric as well as ice, will be treated likewise.

"Consequently, we are not expecting to see electrically operated items taken out of production, while similar products operated by other means are allowed to continue manufacture, as happened in 1942.

"Second—Prices. In my opinion very few manufacturers, if any, in the appliance industry have increased prices since June by an amount necessary to cover cost increases they have had up to November, or at the latest, Dec. 1.

"Certainly, increases to date have not taken into consideration any of the cost increase per unit that must result from reduced production.

"Consequently, if further increases in labor or materials occur, or if production is cut too much, prices will have to be advanced still further, providing manufacturers are to have profits."

Frozen Horsemeat Goes To Dogs In Big Way, Thanks to Freezer

ENGLEWOOD, Colo. — A huge four-door food freezer, of 16-cu. ft. capacity, is helping J. A. Barton, head of South Side Feed & Supplies Co. here to sell more than 1,200 lbs. of frozen horsemeat per week.

The big box, located on the left side of the store, will hold 400 to 500 lbs. of horsemeat, packaged in sizes from one pound to 10 lbs. Ordinarily, it is necessary to restock the box at least three times a week, Barton said, and volume often exceeds 1,500 lbs. during a six-day selling week.

This huge sales volume was actually built up through "detective work" on the part of Barton. Here's how:

When a few customers began asking Barton whether or not he carried frozen horse meat for dogs, the Colorado dealers thought the subject interesting enough to investigate thoroughly. So he began querying his customers about whether they owned hunting dogs, etc. The results proved to be highly encouraging, inasmuch as 90% of the store's rural customers proved to be dog owners.

One woman, for example, now regularly purchases 60 lbs. of horsemeat at a time for a pack of pedigreed hunting dogs maintained on her extensive ranch property. A bloodhound owner has become an equally steady buyer. And all because Barton began using the big home freezer to store frozen horsemeat in.

The South Side Feed & Supply Co. is right on the main highway used by many rural residents enroute to nearby Denver. Consequently most farmers and ranchmen appreciate the chance to pick up all needed dog meats at the same time they are purchasing feed, garden tools, fertilizer, and other such supplies.

"Merely keeping the freezer well stocked with top-quality horsemeat has earned us literally scores of steady new customers," Barton stated.

Sun Adds New Line of Oils For Refrigerating Machines

PHILADELPHIA—A new series of refrigeration oils for higher-operating temperature air conditioning and refrigerating equipment has been announced by Sun Oil Co.

Suniso 300 Oils, especially refined and processed to keep the newer, better running compressors sludge-free and operating at peak efficiency, are described in a folder prepared by Sun.

"New Refrigeration Oils for Higher Operating Temperatures" briefly presents the reasons and research behind the development of Suniso 300 Oils, and outlines the characteristics of each grade.

Copies of the folder are available free on request.

Parts-Quota Plan--

(Concluded from Page 1, Column 4) or by receipt thereof would become, in excess of that necessary to supply repair and maintenance service requiring such part, on the basis of his scheduled method and rate of operation during the succeeding 120-day period. Exceptions will be made in cases of the relatively few maintenance and repair parts necessary to maintain usefulness for a normal accepted life of appliances or units which are obsolete and no longer produced.

"Every wholesale or retail distributor of maintenance and repair parts will upon ordering such parts be required to certify to his supplier that:

"(A) The parts delivered pursuant to the order will be used only for necessary repairs and replacements for existing household electrical appliances, and radio and television units.

"(B) Replaced parts including specified critical materials will be delivered into normal local scrap channels, or, upon manufacturer's request, will be returned to manufacturer for salvage.

"(C) The delivery of the part or parts ordered will not result in an inventory in excess of that provided for in the order.

"Use of critical materials by manufacturers to fulfill certified orders to repair and replacements parts will be in addition to that permitted under NPA 'M' orders.

"Manufacturers discontinuing manufacture of an appliance for any reason will be permitted, upon application to NPA to use materials, in addition to quantities permitted under

NPA 'M' orders, for production of repair and replacement parts in sufficient quantity to assure a normal supply of such parts during the normal life of the appliances heretofore produced and sold."

In addition to Simon, other committee members present were: Lealis H. Hale, Hale & McNeil, Monroe, La.; Harry Williamson, Williamson & Davis, Washington, D. C.; W. E. Pierce, Pierce-Phelps, Philadelphia; Benjamin Gross, Gross Distributors, New York City; Sam Rosenthal, Hyland Electric Co., Chicago.

The National Production Authority representative present was Les Dodge. In a later interview, he predicted good civilian production for six months.

New Manual Shows How To Work Out Labor Problems

NEW LONDON, Conn. — A new manual "Labor Relations Work Kit" has been published recently by the National Foremen's Institute, Inc.

The manual is designed to put the labor relations and personnel man in touch with some of the more successful techniques worked out by other companies who, when faced with a particular problem, have come up with a workable solution.

It names the company which worked out the individual or collective problem and presents a step-by-step "how to do it" procedure—often with visual illustrations.

The manual was edited by Lawrence Steffin with the assistance of the staff of the Institute's bulletin. It contains more than 200 pages and is priced at \$7.50.

Pre-Cooked Frozen Meals Propehsied for Hospitals

SYRACUSE, N. Y.—Plans for a hospital without a kitchen in the near future were discussed by Dr. William Wheeler of the Cancer Institute, New York City, at a conference at Willow Crest Manor, 407 S. Warren St., where an experimental kitchen for development of specially processed menus in pre-cooked dinners is under way.

Dr. Wheeler said that in the hospital of the future all foods would be stockpiled in frozen lockers.

The new dinner comes complete in an aluminum compartmented tray.

Taking part in the conference with Dr. Wheeler were Dr. C. W. W. Hoffman, medical director of the Diagnostic Research Laboratory here; Donald Collins, president of the Collins Food Service; and Ralph S. Thompson, president of Silver Frosted Foods Co.

Feinberg, Fox Co-ordinate UsAirc Defense Contracts

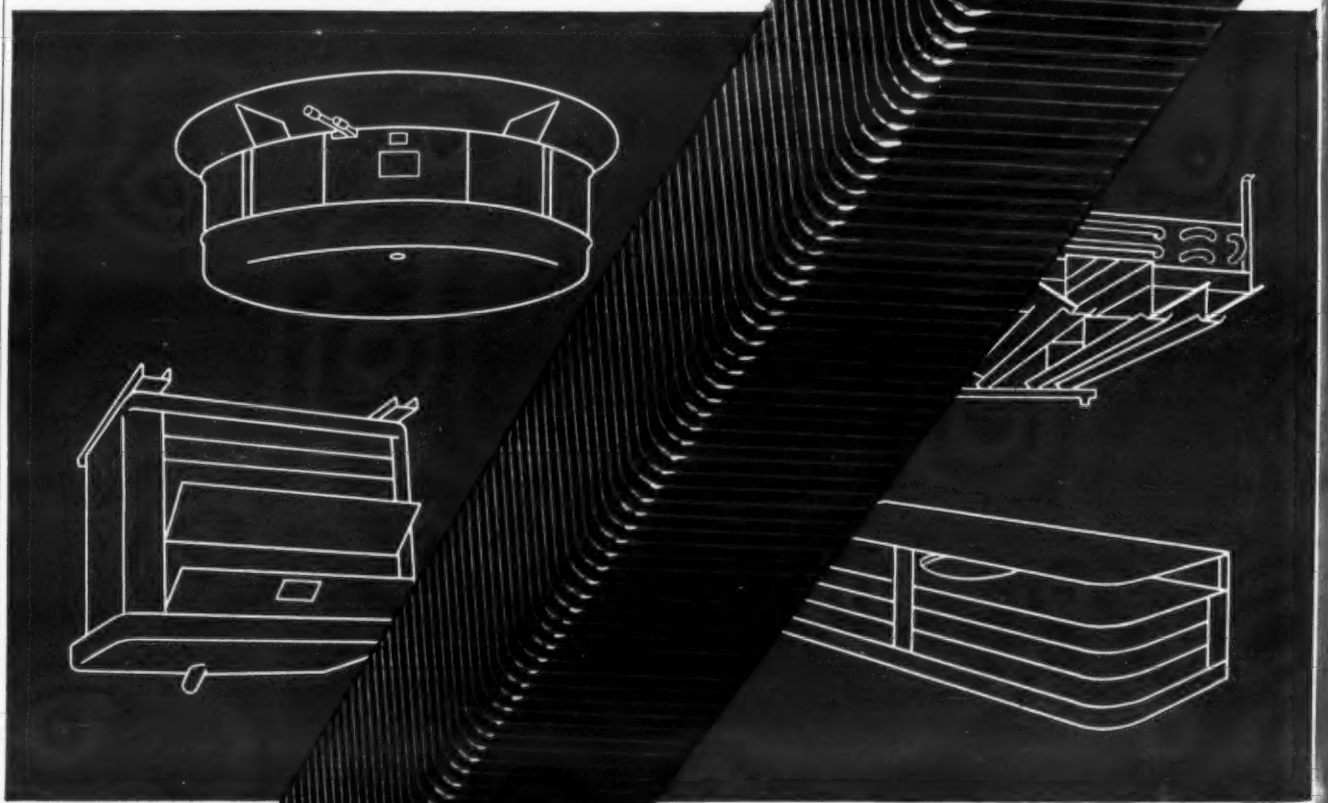
MINNEAPOLIS — David E. Feinberg has been appointed defense contract co-ordinator of United States Air Conditioning Corp. in addition to his duties as manager of the Refrigeration Division.

Burton S. Fox has been named assistant to Feinberg in his newly-created post.

Feinberg's duties will comprise coordination, clarification, and direction of all phases of the company's negotiations with the government and its branches relative to defense work.

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